# DETERMINING THE PROBABILITY OF A COMPANY PAYING DIVIDENDS: AN EXPLORATORY STUDY AT THE NAIROBI STOCK EXCHANGE

*By:*



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Submitted in partial fulfilment for the degree of Masters in Business Administration at the School of Business, University of Nairobi.

**November, 2006**

## DECLARATION

i. I, Bernard Ouma Siero, declare that this research project is my original work and has not been presented for a degree in any other university.

Signed: _____ Date: 24.11.2006

**Bernard Ouma Siero**

ii. This Project has been submitted for examination with my approval as university supervisor.

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# DEDICATION

This research project is dedicated to my mother Prisca Akech Siero who has been my source of inspiration to pursue academics to higher levels.

To my wife, Christine for her patience as I worked on this project.

# ACKNOWLEDGEMENT

I am grateful to all that have assisted me in one way or another to enable me complete this research project. Special mention goes to my supervisor Mr. Luther Otieno for his advice and guidance throughout the period of carrying out this study.

I am thankful to the staff at the Nairobi Stock Exchange and in particular Mr. Godfrey Omilly, the research analyst for ensuring that I obtained all the data necessary for my research. Lastly but not least my colleagues in Finance class (2002) Messrs Boniface Olima, Kennedy Ochuka, Charles Ochola and Daniel Chege among others.

To all I say Thank you!!

# ABSTRACT

Previous studies on dividend at the Nairobi stock Exchange [Abdul(1993), Njoroge (2001)] have used ordinary least square regression techniques which assumes among other things linearity and normal distribution. Yet Aduda (1993) demonstrated that the distributions of the financial ratios for the Nairobi Stock Exchange firms are not normally distributed. Hence models using the normality assumptions may not be appropriate for analysis.

This is thus an exploratory study that attempts to use alternative models that do not rely on the normality assumptions to analyse the determinants of dividends payment at the Nairobi stock exchange. This study uses the technique of binary logistic regression which makes no assumptions of normality and linearity to analyse the effect of different financial ratios on the listed firms' dividend policies. The aim is to establish the factors that may discriminate between the firms that are likely to pay dividends from the ones that are not.

Dependent variables consisted of the binary state of either yes or no for companies that paid and did not pay dividends respectively. Being an investigative study, various ratios were considered as the independent variables, then using backward (Wald) stepwise logistic regression analysis with SPSS software, the least significant and correlated variables were eliminated in steps until the "best" resultant model was obtained.

Findings from the study confirms that the distribution of ratios for the listed firms between 2000 and 2004 are not normally distributed; Dividend payout ratio, Dividend yield, Price Earning Ratio and Price to Book values were the most significant factors in discriminating the dividends paying firms from non-payers at the Nairobi Stock Exchange.

Policy implication of this study is that the existing and potential shareholders could use these findings to establish how likely their firms or the firms they intend to invest in would pay dividends and hence construct their investment portfolios appropriately. Furthermore, in an era of increasing call for transparency and accountability the firms' managers and directors could use the model to defend their dividend policy decisions. Hence the findings of this study could assist in solving part of the agency conflicts between the directors and shareholders of publicly quoted firms.

# TABLE OF CONTENTS

# CHAPTER 1: INTRODUCTION

## 1.1 BACKGROUND INFORMATION:

Brealey and Myres (1984 p.331) tell us that corporate managers would like to know how dividends affect the value of their firm. Why firms pay dividends and why they subsequently change their dividends policy is still a puzzle. There has been considerable debate on how dividend policy affects firm value. Some researchers believe that dividends increase shareholder wealth (Gordon, 1959). Gordon argued that dividend decision is not independent of investment decision, and that investor considers capital gains riskier than dividends. Others believe that under a set of assumptions, dividends are irrelevant (Miller and Modigliani (1961), Scholes, 1978), and still others believe that dividends decrease shareholder wealth (Litzenberger and Ramaswamy, 1979). Miller and Modigliani's (1961) premise - that valuation depends only upon the productivity of the firm's assets and not the form of payout - is an issue that continues to draw attention in the literature (e.g., Brennan and Thakor, 1990).

A number of researchers have provided insights, theoretical as well as empirical, into the dividend policy puzzle. The question is: How do companies decide on dividend payments? Can we rely on information derived from financial statement to predict whether a firm will pay dividends or not? Litner (1956) conducted a series of interviews with corporate managers about their dividend policies. He found that most managers perceive the dividend problem in terms of proportion of earnings that should be paid out rather than the proportion of earnings that should be retained for reinvestment. Litner (1956) other finding was that firms should have a long term target dividend payout ratio.

Corporate managers of companies listed at the Nairobi Stock Exchange (NSE) rarely tell investors in advance the amount and timing of pending dividends. Information whether a company is likely to pay dividends or not is sparse. Yet investors' have to make investment decisions in advance. This situation creates an information industry on the subject of dividends prediction. The purpose of this

study is to establish whether ratios derived from financial statements are useful in predicting dividends or classifying firms into payers and non payers.

Bhatacharya's (1979) dividend signalling model is that two types of firms exist and that the payoff distribution for the good firm dominates that of the bad firm. From this we infer that the profitability, financial position and cash flow position of good firms are superior to those of bad firms. Information relating to profitability, financial position and cash flow are contained in financial statements. From this information, a set financial ratios can be derived and relied on in both inter and intra firm comparisons.

Earlier studies model dividend decision using information contained in financial statements, (Njoroge, 2001), (Abdul, 1993), (Karanja, 1987). The main difference between this study and the ones previously done on the NSE Companies would be on the methodology used. This study aims at capturing the determinants of dividend payouts (in form of financial ratios) using Binary Logistic Regression Approach. Studies carried out on NSE dividends include: Omondi, (2003), Wairimu, (2002), Njoroge (2001), Abdul (1993) Karanja, (1987). All these studies have used Linear Regression techniques in determining the factors that determine dividends for the NSE Companies.

The assumption in this study is that financial statements contain useful information that can be manipulated and compared across listed firms. The specific expectation is that financial statements contain information useful in predicting future dividend. This study considers the dividend determinants into broad categories of ratios (the independent variables in this study), while the dependent variable refers to the binary state of yes / no as to whether a company paid dividend or not.

The Ratios considered have been tested and include: Long-term Solvency & Stability Ratios (Fixed Interest Cover and Total Debt to Shareholders Fund), Short-term Solvency & Liquidity Ratios (Current Ratio, Acid Test Ratio), Efficiency & Profitability Ratios (Gross Profit Margin, Net Profit Margin, PBIT to Total Assets,

Turnover to Total Asset, Turnover to Shareholders Capital) and Potential & Actual growth Ratios (NBV per Share, EPS, P/E ratio). These ratios are used to represent the various factors that affect the dividend decision as per various previous findings in the literature. The dividend factors may be grouped into four broad categories as, constraints on dividend payments, investment opportunities, availability and cost of alternative cost of capital, and effects of dividend policy on cost of common stock ($K_s$), (Brigham, Gapenski and Ehrhardt, 1999). The Financial Ratios used to proxy for the above determinants of dividends in the study as follows:

Constraints on dividend payments include bond indentures, preferred stock restrictions, impairment of capital rule, availability of cash and penalty tax on improperly accumulated earnings. This category of dividend determinants is represented by the short term solvency and liquidity Ratios in this study.

Investment Opportunities - If a firm typically has a large number of profitable investments opportunities, this will tend to produce a low target payout ratio and vice versa if the firm's profitable investments opportunities are few in number. The investment opportunities are represented by the Efficiency and Profitability Ratios in this study.

Alternative Sources of Capital, which includes cost of raising new capital by selling new stock, ability to substitute debt for equity and ability to maintain control of the firm of the firm has the Long-term Solvency and Stability Ratios as their proxy.

Effects of Dividend Policy on $K_s$: The effect of dividend on $K_s$ is considered in terms of stock holders' desire for current versus future income, perceived riskiness of dividends versus capital gains, the tax advantage of capital gains over dividends and the information content of dividends (signalling). This category of dividends determinants is represented by the Potential and Actual Growth Ratios in the study.

Several rationales for a corporate dividend policy have been proposed in the literature [Gordon (1962), Lintner (1956)], but there is no unanimity among

researchers. However, all agree that the issue is important, as dividend payment is one of the most commonly observed phenomenon in corporations worldwide [Krishman (1933), Solomon (1963)]. The issue of dividend policy is important for several reasons. First, a firm uses dividends as a mechanism for financial signalling to the outsiders regarding the stability and growth prospects of the firm. Secondly, dividends play an important role in a firm's capital structure and investment decisions. Further, a firm's stock price is affected, among other things, by the dividend pattern. Firms usually do not like to reduce or eliminate dividend payments [Woolridge and Ghosh, 1988 and 1991], hence, they make announcements of dividend initiation or increases only when they are confident of keeping up with their good performance.

Indeed, the market value of a firm is dependent upon its stock price and this is clearly demonstrated in one of the most popular finance models for stock valuation (the dividends discounting model) or DDM, which relies upon the assumption that the firm will pay dividends until eternity. Dividend policy is one of the most important financial policies, not only from the viewpoint of the firm, but also from that of the shareholders, the consumers, the workers, regulatory bodies and the Government. For a firm, it is a pivotal policy around which other financial policies rotate. Value of the corporate securities depends to a great extent on dividend and, therefore, in deciding upon the financial structure of a company, dividend has to be assigned due consideration.

Dividend policy decision influences the financing decision of the firm through retained earnings. Financing decision would relate to the amount of funds to be raised from external sources as the investment needs of a firm can be fulfilled by a combination of retained earnings and external financing. Therefore, the higher the amount of retained earnings, given the investment needs, the lower will be the need for external finance and vice-versa. Initial studies theorizing corporate dividend policy are divided as to their prediction of the dividend payment's effect on share price; hence over the last century three schools of thought have emerged. One faction sees dividends as attractive and as a positive influence on stock price; the

second bloc believes that stock prices are negatively correlated with dividend payout levels; while the third group of theories maintains that firm dividend policy is irrelevant in stock price valuation (Miller & Modigliani, 1961).

However, more recent theoretical and empirical models of corporate dividend policy have based the taxonomy on the criterion of the nature of the market structure and / or the underlying rationale of the investor, (Rozeff, 1982). Hence, recent models are broadly segregated, based on their rationale, into models formulated in states with full information, models in states with information asymmetries and models using behavioural principles.

There are several factors that would influence the dividend policy of a firm. These factors include: *Legal Rules* - The net profit rule, which provides that dividends can only be paid from past or present earnings. Dividend cannot be paid from capital neither can a firm pay dividends when insolvent, that is when the liabilities exceed the assets; *Liquidity Position* - If the retained earnings are held as assets, then even a profitable firm may not be liquid enough to pay cash dividends; *Need to repay debts and restrictions in debt contracts* - If a firm makes provisions for paying off debts then it may require more retention and less dividend payout. Lenders may impose certain conditions in the loan contracts to the effect that dividends cannot be paid when networking capital is below a specified amount; *Rate of Asset Expansion and stability of earnings* - The more rapidly the firm is growing, the greater its need for financing the asset expansion. On the other hand a firm that has relatively stable earnings is more likely to pay out a higher percentage of its earnings than for a firm with fluctuating earnings; *Access to External Finance* - Firms that have easy access to capital markets and other forms of external financing are likely to have higher dividend payout rates than firms that are solely financed from the internal sources; *Tax position of shareholders*-A firm closely held by a few shareholders in high income tax brackets is likely to pay a relatively low dividend since the owners prefer taking their income in the form of capital gains rather than dividends, which are subject to higher effective personal tax rates. However, the shareholders of large widely held corporations might prefer high dividend payouts.

Investors believe that dividends signal fundamentals. For example, in United States of America, before companies were required by law to disclose financial information in the 1930s, a company's ability to pay dividends was one of the few signs of its financial health (Investopedia.com). Despite the Securities and Exchange Act of 1934 and the increased transparency it brought to the industry, dividends still remain a worthwhile yardstick of a company's prospects.

Characteristically, mature, profitable companies pay dividends. However, companies that do not pay dividends are not necessarily without profits. Any company with growth opportunities that are better than investment opportunities available to shareholders elsewhere should keep the profits and reinvest them into the business. It is not surprising that few growth companies pay dividends. But even mature companies, while much of their profits may be distributed as dividends, still need to retain enough cash to fund business activity and handle contingencies.

## 1.2 RESEARCH PROBLEM:

Dividends can give investors a sense of what a company is really worth (Gordon, 1962). The dividend discount model Gordon (1962) is a model that explains the underlying value of a share, and it is a variant of the capital asset pricing model Sharpe (1964) which, in turn, is the basis of corporate finance theory. According to the model, a share is worth the sum of all its prospective dividend payments, 'discounted back' to their net present value. As dividends are a form of cash flow to the investor, we expect it to be an important indicator of a company's value.

An apparent standard in the literature on dividends is that, not much guidance as to the level of the dividend, other than that higher quality firms will have higher dividends is offered. There is very little information about a firm's ability to pay dividends or not. Shareholders know little on whether their firm will pay dividends or not.

The agency cost, Jensen and Meckling (1976), literature has inference in a world of informational asymmetries. The assumption in the signalling literature is that

managers are maximizing shareholder value. A firm might skip dividends yet the prevailing conditions within the firm suggest that it should pay dividends. Donaldson (1963), explain how management would engage in more unadventurous investment policies to the detriment of shareholders. The shareholders might be interested in pinning down, thus check managerial opportunism on matters regarding dividend decisions. Investors or shareholders need information that enables the check managerial opportunism.

This study is a follow up to the various researches already carried out on determinants of dividend payments for the listed companies at the NSE. A number of studies at NSE, in modelling dividends, relied on information contained in financial statements, (Omondi, 2003); (Kuria 2001). Kuria (2001) report that relationship between dividend payout and ROE is not significant for all the years except 1998; the relationship between dividend payout and ROA was not significant; the relationship between average growth in assets and dividend payout was not significant except for 1995. These finding are however not conclusive.

Omondi (2003), Kuria (2001) used information derived from financial statements to model dividend policies and practices of firms listed at the NSE. This is because financial statements contain information about solvency, profitability and financial strength of a firm, Forster (1996). Therefore, financial statements of quality should be useful information source to investors and their agents whose interest is to forecast dividends. In any case, if ratios of different firms vary in line with firm performance, then we expect statistically significant difference between poorly and well managed firms. This make ratios useful in grouping firms into two groups, poorly and well managed (Clarke, 1990). Only well managed firms are expected to pay stable dividends. Previous studies [ Kuria (2001), Farida (1993)]have mainly used the quantitative aspects only, leaving out the qualitative aspects of the financial statements. For example qualitative information like the auditors opinion, whether firm paid or did not pay dividends are oftened left out in purely quantitative studies.

However their findings, Omondi (2003), Kuria (2001) need to be subjected to rigorous corroboration process. This requires subjecting the variables of the study to different and competing alternative statistical approaches. The assumption in these earlier studies as well as this study is that performance and financial position of dividend paying firms are different from those of non payers. Furthermore, these earlier studies that examined the determinants of dividend policies and practices for the companies listed at the Nairobi Stock Exchange have employed the Ordinary Least Squares (OLS) Regression Approach as opposed to logistic regression. Logistic regression could be more descriptive when also using qualitative information contained in financial statements to separate dividend paying firms from non payers. In reality dividend loving investor would want to separate dividend paying firms from non payers. That being the case, the dependent variable is limited i.e. discrete and not continuous; and binary logistic regression might a relevant modelling tool (Vani Kant, 2002; Pampel 2002).

This study aims at answering pertinent questions such as: *How does an investor know whether the company in which he holds shares or is considering investing in will pay dividend? Is correct use of information contained in financial statement along with appropriate model of any use to current and potential investors? How does a potential investor determine the odds that the company he/she anticipates to invest in will pay dividends?*

## 1.3 RESEARCH OBJECTIVES:

To establish whether financial ratios obtained from companies' financial statements are useful in estimating the likelihood that a Nairobi Stock exchange quoted firm will pay dividends or not. The Hypothesis tested being:

**Ho:** Financial ratios are not useful in estimating the likelihood that a firm will pay dividends.

**$H_1$:** Financial ratios are useful in estimating the likelihood that a firm will pay dividends.

## 1.4 JUSTIFICATION OF RESEARCH:

The findings of this research would be relevant to the following categories of interest groups:

(i) **Investors:** Existing and potential investors would be interested in knowing the likelihood of a firm paying dividends. Depending on the tax position of a shareholder, dividends or capital gains may be preferred as a means of managing the overall tax liability. Such Investors would require a model to use if they are to arrive at systematic decisions.

(ii) **Firms Management:** The firms' management can plan in advance using their pro-forma Financial Statements to determine whether they will be in a position to pay dividends or not and as such could take remedial measures

(iii) **Stock Brokers & Financial Analysts:** Stock-Brokers and Financial Analysts would be interested in discerning which listed firms are likely to pay dividends or not and advice their clients accordingly. This model will be important for their analysis.

(iv) **Tax Authorities:** Firms often benefit from some investment allowance as long as the gains or profits are reinvested and not paid out inform of dividends. When such gains are paid out as dividends then the firm is subject to Dividend Compensating tax. The tax Authorities could use this model to determine firms to be subjected to Compensating Tax Audits.

(v) **Scholars & Researchers:** Scholars and researchers would be interested in model as an addition to the existing body of knowledge in dividend theory. It would be of interest to the scholars to subject such new propositions to rigorous tests, carry out comparative studies to see if the results could be replicated elsewhere e.g. for non listed firms or other stock markets.

# CHAPTER 2: LITERATURE REVIEW

## 2.1 BACKGROUND:

To date no finance theory has received unanimous universal acceptance as explaining the reasons why firms do pay dividends. Different scholars have proposed very divergent and at times conflicting theories to explain the dividend debate. Professor Fischer Black (1976) observed, *"...The harder we look at the dividend picture the more it seems like a puzzle with pieces that don't just fit together."* A review of some of the research articles particularly on the determinants of corporate dividend policies, which attempts to offer explanations to the dividend puzzle, is presented for the following cases:

## 2.2 DIVIDEND IRRELEVANCE THEORIES:

**Miller and Modigliani (1961)** advanced the view of dividend policy in their most celebrated article "Dividend policy Growth and the valuation of Shares" that the value of firm depends solely on its earnings power and is not influenced by the manner in which its earnings are split between dividends and retained earnings.

Miller and Modigliani propose that dividend policy is not relevant as long as the firm's investment policy remains constant. This irrelevance hypothesis, however, holds only in perfect and complete capital markets. The perfect capital market assumptions being that investors behave rationally, information is freely available to all and transaction and floatation costs do not exist. The hypothesis further assumes that taxes do not exist or there is no tax differential in tax rates applicable to capital gains and dividends.

M-M's argument is that firms that pay dividend will have to raise funds externally to finance its investment plans, hence the dividend policy does not affect the wealth of shareholders. The advantage of paying dividend is off set by external financing hence the overall wealth of the shareholders does not increase due to dividend payout; hence the shareholders should be indifferent between payment of dividends and retention of earnings.

However, M-M's model has been heavily criticized mainly because of the assumptions on which it was founded. For the past 40 years or so, financial economists have attempted to relax the assumption of complete and perfect capital markets. A number of market imperfections have been investigated including, taxes (Litzenberger and Ramaswamy, 1979, and Miller and Scholes, 1982, Miller and Scholes, 1978, and Kalay, 1982), information asymmetry (Bhattacharya, 1979 and Miller and Rock, 1985), transaction costs (Del Guercio, 1996), and agency costs (Lang and Litzenberger, 1989, Yoon and Starks, 1995).

**Ambarish, John and Williams (1987)** examined signalling equilibrium with dividends and new stock issues. A major implication of this paper is that since the tax on dividends is not significant, the dividend itself may not be an economical signal. By combining the dividend signal with other signals such as debt or investment changes, the firm may be able to obtain a less-costly signalling mix.

## 2.3 DIVIDEND RELEVANCE THEORIES:

**John Lintner (1956)** conducted an empirical research over dividend pattern of 28 companies for the period of 1947-1953 with the help of regression analysis. The study concluded that a major portion of dividend of a firm would be expressed in terms of firm's desired dividend payment and target payout ratio. Lintner findings could be summarized as: (i) Firms have a long-run target dividend payout ratios. (ii) Managers focus more on dividend changes than on absolute levels. (iii) Dividend changes follow shifts in long-run, sustained earnings. Managers 'smooth' dividends. (iv) Managers are reluctant to make dividend changes that might have to be reversed. Lintner's model suggests that dividend depends in part on the firm's current earnings and in part on the dividend for the previous year.

**Walter's Model (1956):** Professor James Walter argues that the choice of dividend policies affect the value of the firm. The assumptions he postulated includes: (i) that firm finances all investment through retained earnings. (ii) The firm's internal rate of return, r, and its cost of capital, k, are constant. (iii) All earnings are either

distributed as dividends or reinvested internally immediately. (iv) Beginning earnings and dividends never change. (v) The firm has a very long or infinite life.

The model illustrates the effect of different dividend policies on the value of the share respectively for the growth firm, normal firm and declining firm. Walter proposes that for growth firms (ample investment opportunities yielding higher returns than the opportunity cost of capital); the optimum payout ratio should be zero. This is because the market value per share increases as payout ratio declines when $r > k$.

For normal growth firms where $r = k$, the firms do not have unlimited surplus generating investment opportunities hence the dividend policy has no effect on the market value per share in the Walter's Model. In this case there is no unique dividend policy; one dividend policy is as good as the other. However, for the declining firms the model proposes a 100% payout ratio. Investors of such firms would like earnings to be distributed so that they may either spend it or invest elsewhere to get higher returns.

Walter's model has been criticized on some of its assumptions. In the assumption that there is no external financing, the model mixes dividend policy with investment policy of the firm. The other assumption of constant rate of return, r; and constant opportunity cost of capital, k doesn't hold much sway since r tends to decrease as more investments occur. The firms would invest in the most profitable investments first before the poorer investments are made up to the point where $r = k$. The cost of capital does not remain constant either as it changes as the firms risk changes.

**Gordon's Model (1962):** Myron Gordon's model relates the market value of the firm to dividend policy. Gordon built this model based on the assumptions that (i) the firm is an all equity firm, (ii) no external financing, (iii) the internal rate of return of the firm is constant as is the appropriate discount rate (iv) no corporate taxes and the firm's stream of earning are perpetual, (v) the retention ratio once decided remains constant.

Thus according to Gordon's model, the market value of a share is equal to the present value of an infinite stream of dividends to be received by the shares.

$$Po = \sum_{t=1}^{\infty} \frac{Divt}{(1+k)t}$$

But with retained earnings, the value of dividend per share is expected to grow such that;

$$Po = \sum_{t=1}^{\infty} \frac{Div(1+g)t}{(1+k)t} = \frac{Div1}{k-g} = \frac{EPS(1-b)}{k-br}$$

Hence for a declining firm as the value of retention, b increases the value of the share continuously falls. If the internal rate of return, r is smaller than k, which is equal to the rate applicable in the market, profit retention becomes undesirable from the shareholders perspective.

For the growth firm, $r > k$ the value of a share will increase as the retention ratio, b increases whereas for a normal growth firm where $r = k$, the dividend policy is irrelevant; in this regard the Gordon's Model on dividend policy concurs with the Walter's Model.

**Krishman (1933)** argued that shareholders often act upon the principle that a bird in hand is worth two in the bush, and for that reason are willing to pay a premium discount for the shares with the higher dividend rate, just as they discount the one with the lower rate. Similar views are reiterated by Graham and Dodd (1934) that the typical investor would most certainly prefer to have his dividend today and let tomorrow take care of itself. Uncertainty increases with futurity, the further into the time horizon the more uncertain the dividends become. Thus under condition of uncertainty, the discount rate k, cannot be assumed to be constant.

**Solomon (1963)** argued that dividends offer tangible evidence of the firm's ability to generate cash; hence the dividend policy of the firm affects the share price. He states, "... in an uncertain world in which verbal statement can be ignored or misinterpreted, dividend action does provide a clear-cut means of making statement that speaks louder than a thousand words".

The argument is that the announcements of changes in dividend policy influences share prices, and that the managers use the dividend changes to convey information about the future earnings of their companies. It also shapes the perceptions of the investors about the risk of the firm.

Mature companies with fewer profitable investment opportunities have high payout ratios as opposed to the growth companies that have low payout ratio. Hence a steady increase in both earnings and dividends coupled with a continuing low payout ratio gives the message that the firm expects to keep growing; while on the other hand a greater increase in the dividends than the earnings may convey to the shareholders that the profitable investment opportunities of the firm are diminishing.

The understanding of shareholders may depress the market price of the share in spite of an increase in dividends .The theory contends that the dividend policy is relevant because of their informational contents. At least even M-M accept the principle of the informational content of dividends but to that extent only since M-M insist that the share price is determined by the expected future earnings and the firm's investment policy but never by the dividends.

**Rozeff (1982),** Rozeff argued that for an optimal dividend policy to exist there must be benefits and costs of paying dividend. There are three approaches to optimal dividend policy that identify benefits as well as costs: (i) Dividends, Agency costs and External Financing: Rozeff suggest that dividend payout is costly because it increases the probable need to raise more expensive external capital to fund new investments. On the other hand a possible benefit of dividend payments is that they may reduce agency costs between owner managers and outside owners of a firm.

Thus a wealth maximising firm will adopt an optimal monitoring and bonding policy that minimizes agency cost. (ii) Dividends as Signals: Ross (1977) showed that an increase in dividends paid (or the usage of debts) could represent an unambiguous signal to the market place that a firm's prospects have improved. (iii) Dividends Investment and Taxes: Masulis and Trueman (1988) argue that the higher an individual's tax bracket, the more likely he is to want the firm to invest cash flows internally instead of paying dividends, even when investment returns decline with more investment. Shareholders with different tax rates will not unanimously agree on the firm's investment / dividend decision. High tax bracket shareholders would prefer the firm to invest more whereas the low tax bracket shareholders would prefer less investment.

**Fama and Babiak (1968)** studied the determinants of dividend payments by individual firms during 1946-64. For this purpose, the study used the statistical techniques of regression analysis, simulations and prediction tests. The study concluded that net income seems to provide a better measure of dividend than either cash flow or net income and depreciation included as separate variable in the model.

**Murray (1981)** used non-capital market data to test the theoretical implication that dividend payout is negatively correlated with earning uncertainty. The study concluded that earnings uncertainty is a determinant of the corporate dividend decision.

**Kim Won Kee (1987)** studied the influence of transaction costs and agency costs on dividend payout of companies. The cross-sectional tests of the models performed on a sample of 357 industrial companies in 1979-1981 related dividend payout ratios to explanatory variables such as the fraction of equity held by insiders, past and expected future growth of the firm, the firms beta, the total risk of the firm, the number of shareholders of the firm and the research and development expenditure of the firm. The results of the study indicated that transaction costs and agency costs are likely to influence company's dividend policy.

**Michael (1994)** examined the relationship between earnings, dividend declarations and investor returns. The empirical results reported suggest that most of the information contained in dividends that is useful to financial markets, is also contained in accounting earnings. There does appear to be some useful information in dividends that is not contained in accounting earnings.

**Sharma and Rao (1992)** attempted to identify the signalling aspects of corporate dividend policy. They included that the dividends are perceived as signals from (I) Management's point of view, (II) Performance point of view, and also (III) market's point of view. The empirical results indirectly support the semi-strong form of efficient market hypothesis.

**Karak (1993)** examined the policy decision regarding divisible profit and dividend decision. The study concludes that management in India, as a rule, have recently followed conservative policies with regard to dividends. There is an increasing tendency on their part to finance the expansion out of internal resources as far as possible.

## 2.4 LOCAL STUDIES ON DIVIDEND (NSE COMPANIES):

Local studies on determinants of dividends have been carried out for the Nairobi Exchange listed companies and are mainly the unpublished MBA Project projects presented at the University of Nairobi. These are studies by:

**Njoroge (2001)** studied listed companies from 1991 to 1998 and used linear regression technique with dividend payout as the response variable and return on equity, return on asset, growth in assets, average return on equity, average return on assets and average growth in assets as the predictor variables. His findings are that: The relationship between dividend payout and ROE is not significant for all the years except 1998; the relationship between dividend payout and ROA was not significant; the relationship between average growth in assets and dividend payout was not significant except for 1995.

**Farida (1993)** used the OLS Regression technique to explore the relationship between dividends and profits, liquidity, investment, working capital and cash flows. The findings showed that liquidity was the most significant variable (64% of the sample) in determining dividend payments among the publicly quoted companies, followed by working capital (53% of the sample). Further, the findings showed that cash flow was more significant in dividend payment than profit.

**Omondi, (2003),** tested the reliability of dividend discounting model at the Nairobi Stock Exchange and found out that the model is not reliable in the valuation of the common stock. This was attributed to the fact that the NSE is far from being a perfect market.

**Wairimu (2002)** used the ordinary least squares regression technique on the Nairobi Stock Exchange companies continuously listed between 1981 and 2000. The findings were that there exists a significant relationship between dividend and investment decision. The predictor variables considered were net plant and equipment per share, sales plus change in inventories per share, available earnings per share for common stock holders, depreciation per share and a factor of the gross national domestic product.

From the above studies we observe reliance on OLS regression and an array of weak relationship making it plausible to attempt other analysis techniques; hence the motivation to use binary logistic regression technique which makes use of both the quantitative as well as qualitative aspects of the firms.

## 2.5 FINANCIAL STATEMENT INFORMATION:

The assumption in this study is that financial statements contain useful information that can be manipulated and compared across listed firms. The specific expectation is that financial statements contain information useful in predicting future dividend. Investors rely on information in making their investment decision. Many times that information used in analysing investments is to a large extent based on the information derived from financial statements. Financial statements, apart from

being freely available, contain information of substance, especially useful in improving the quality and speed of the decisions to be made (Foster, 1986). Both investors and managers find financial statements useful. Investors want predict a firms future earnings and dividends and are known to rely on financial statement analysis to achieve this objective.

From the management's point of view, financial statement analysis is useful both as a way to anticipate future conditions and more importantly as a starting point for planning actions that will influence the future courses of events (Foster, 1986; Ohloson 1990). Financial statements are preferred source of information because financial statements focus directly on the variables of interests to investors and have professional opinion of certified by auditors attested on them. In addition they are available to investors at a comparatively low cost. Investors and their advisors focus on the predictive capability as well as the diagnostic role of the accounting numbers contained in the financial statements. These numbers are believed to capture enough information of interests to users of financial statements, such as whether a company will pay dividends or not. Nonetheless, there are varied views on the how useful financial ratios are in predicting variables of interest to investors.

## 2.6 FINANCIAL RATIOS:

Researchers have hypothesised the usefulness of ratios and continued to use them. For example, Otieno (1987) refer to Beaver (1966) study that set to determine the extent to which ratios are useful in discriminating between failed and non-failed firms. Beaver (1966) on examining the predictive power of thirty different ratios, conclude that ratios can be used to predict corporate failure as early as five years prior to the failure. Beaver (1966) was Univariate approach i.e. ratios are examined one at a time.

**Altman (1968)** used an array of ratios (multivariate analysis) to predict corporate bankruptcy. Altman (1968) employed discriminant analysis model. Discriminant analysis model is used to classify cases into one of several a prior groupings when the dependent variable is categorical. Altman (1968) ratios covered liquidity,

retained earnings, capital structure, profitability and asset turnover. From a purely statistical perspective these ratios gave the best result. Deakin (1972); Ohlson (1980) were a follow up to Altman (1968) study.

**Johnson (1970)** present a divergent view that is, ratios do not contain information about alternative strategies and the investing economic conditions, such as mergers, deferrals, confronting management and investors. Financial ratios are derived from corporate financial accounts which may vary widely in the manner in which they describe firms as a result of creative accounting practices, the history of the firm, and so on, and this inconsistency problem will impact upon the ability to model the relationship between the dependent variable and its potential determinants. Security analysis focuses on the long-term profitability of the firm. Credit analysis on the other hand employs the use of current/quick – asset ratio to establish the firm's ability to pay its debts and the debt/equity ratio to determine the firm's survival in the long run.

It is mentioned above that Altman (1968) used ratios to separate bankrupt firms from non bankrupt firms. He developed multivariate approach to ratio analysis. He combined a set of ratios to form a single index, the Z score, which he used to classifying firms into bankrupt and non bankrupt. His study was based on 66 firms, half of which went bankrupt from which he ascertained five (5) ratios useful in predicting corporate bankruptcy. These include: net working capital to total assets, retained earnings to total assets, earning before interests and taxes (henceforth abbreviated as EBIT) to total assets, market value of total equity to book value of debt and, sales of total assets. His discriminant function was: $Z = 0.012X\ 1 + 0.014X2 + 0.033X3 + 0.006X4 + 0.999X5$

Where X1 to X5 represent the ratios; net working capital to total assets, retained earnings to total assets. EBIT to total assets, market value of total equity to book value of debt and sales to total assets respectively, and the Z is the discriminant function score of the firms. Altman concluded that ratios possess predictive value. Ratios tell more when we compare a firm's ratios with those of its competitors i.e.

what strategists call benchmarking. Ratios would be meaningless without a reference point, Otieno (1987). Where the norm is the reference point, comparisons indicate the extent to which a firm digress from the norm. However ratios have limitation hence the need to test them empirically.

Analyst and researches can derive a large number of ratios from the financial statements; and proceed to group the ratios into various categories. Chem and Shimerda (1981) present 100 ratios, out of which only 50 percent have been used by researchers in empirical studies. This suggests that researchers need not look at all ratios. This is critical where regression analysis is to be carried out i.e. avoiding multicolinearity.

The statistical techniques using ratio to classify firms can be classified into three categories. The first is the dicriminant analysis where the aim is to classify observation into one or two groups based on a set of predetermined variables, (Altman, Haldman and Norayanan, 1977). The second is logit or probit analysis where the aim is to estimate the probability that an event (for example a firm will pay dividends, (Ohlon, 1980). Finally, recursive partitioning which is a nonparametric classification technique based on pattern classification, (Frydman, Altwan and Kao, 1985).

# CHAPTER 3: RESEARCH METHODOLOGY

## 3.1 POPULATION FOR THE STUDY:

The firms listed in the Nairobi Stock Exchange between January 2000 and December 2004 comprises the population frame. This is because their financial reports are readily available (all listed companies have to submit their annual financial reports to the Capital Market Authority and the Nairobi Stock Exchange Authorities) and are also subjected to statutory audits hence more reliable than for the private companies that may not be willing to divulge their financial statements.

## 3.2 SAMPLE SELECTION:

This being an exploratory study a complete census of the firms in the population frame has been considered. All the listed firms between January 2000 to December 2004 have been considered. The data for the same was readily available from the Nairobi Stock Exchange; moreover, the maximum number of the firms (48 in 2004) was manageable for the analysis.

## 3.3 VARIABLES OF THE STUDY:

### Dependent Variable:

The dependent variable is the binary state of 1 or 0. The Dividend paying Companies are represented by 1, while the companies not paying any dividend are represented by 0 for each of the years under study.

### Independent Variables:

Financial ratios computed from the companies' financial statements constitute the independent variables for the study. The ratios are denoted as in Table 1 below:

**Table 1:**

| No | Ratio (Independent Variable) | Denoted As |
|---|---|---|
| 1 | Current Ratio | CR |
| 2 | Price Earning Ratio | PE |
| 3 | Dividend Yield | DivYd |
| 4 | Dividend Payout Ratio | DivPay |
| 5 | Price to Book Value | PriceBk |
| 6 | Debt to Equity Ratio | DebtEq |
| 7 | Return on Investment | ROI |
| 8 | Return on Equity | ROE |
| 9 | Turnover to Total Assets | TurnTA |
| 10 | Turnover to Equity Capital | TurnEq |
| 11 | Working Capital to Total Assets | WCTA |
| 12 | Growth in Earnings After Tax | IncEAT |

A brief discussion of the ratios used in the analysis is presented below:

**Current Ratio** = Current Assets / Current Liabilities.
It represents how liquid the firm is in terms of ability to pay its short-term liabilities as and when they fall due. For a firm to be able to pay dividends it must be able to meet its ordinary liabilities first. Hence firms with higher current ratio are expected to have better liquidity to be able to pay dividends.

**Price to Earnings Ratio** = Market Price per Share / Earnings per Share. This is the most widely reported and regarded ratio in financial analysis. The Price Earnings Ratio is generally expressed as an integer. When multiplied by the Earnings per Common Share the result is the current market price of a common share. Conversely, the Price-Earnings Ratio, if known, can be divided into the market price of a common share to yield the Earnings per Common Share. This ratio value has the most relevance for an actively traded stock in a highly liquid market – like a public stock market.

This ratio is shorthand for the multiple of actual or anticipated earnings represented by the price of a common share. The Price-Earnings Ratio illustrates the optimism investors have with regards to the future earnings performance of the company. In many instances, the higher the ratio the more speculative the optimism for short-term increase in value or the more confident the investor is in the longer-term realization of earnings. P/E ratio is a useful indicator of what premium or discount investors are prepared to pay or receive for the investment. The higher the price in relation to earnings, the higher the P/E ratio which indicates the higher the premium an investor is prepared to pay for the share. This occurs because the investor is extremely confident of the potential growth and earnings of the share.

**Dividend Yield** = Dividend per Share / Market Price per Share
This ratio yields a percentage rate of return on the investment in common or preferred stock. This figure is most useful in comparing years of performance for an

individual company. Comparisons with other companies will be affected by the number of considerations made by the Boards of Directors with regard to dividends in "Earnings per Common Share". The dividend yield ratio allows investors to compare the latest dividend they received with the current market value of the share as an indictor of the return they are earning on their shares. The current market share price may bear little resemblance to the price that an investor paid for their shares.

**Dividend Payout Ratio** = Dividend per Share / Earnings per Share. This ratio looks at the dividend payment in relation to net income. Generally, the low growth companies have higher dividends payouts and high growth companies have lower dividend payouts.

**Price to Book Value** = Market Price per Share / Book Value per Share
This will show whether the values of the shares have been increasing or decreasing over time.

**Debt to Equity Ratio** = Total Debt / Total Equity
This ratio represents the solvency / stability of the firm. It represents the extent at which the shareholders are exposed to external debt.

**Return on Investment** = Profit after Tax /Total Assets
The more efficient the production, the more profitable the business. The rate of return on total assets indicates the degree of efficiency with which management has used the assets of the enterprise during an accounting period. This is an important ratio for all readers of financial statements.

**Return on Equity** = Profit after Tax / Equity.
Investors have placed funds with the managers of the business. The managers used the funds to purchase assets which will be used to generate returns. If the return is not better than the investors can achieve elsewhere, they will instruct the managers to sell the assets and they will invest elsewhere. The managers lose their jobs and the business liquidates.

**Turnover to Total Assets** = Turnover / Total Assets

This ratio represents the scale of operations and how efficiently the assets are being used. An efficient company is expected to be more profitable hence ensures higher returns for the investors.

**Turnover to Equity Capital** = Turnover / Equity Capital

The ratio shows the contribution of equity capital to the turnover. It reflects how efficiently the shareholders funds are used in attaining the turnover.

**Working Capital to Total assets** = Working Capital / Total Assets.

This represents the proportion of Total Assets that is used to generate revenues.

**Growth in Earnings after Tax** Measures the growth in earnings after tax compared to the previous year.

## 3.4 METHODS OF DATA CAPTURE:

Financial data of the listed Companies would be extracted from their Annual Financial Statements reports. The reports from Nairobi Stock Exchange and Capital Market Authority would also be used. The data is captured for the financial years 2000, 2001, 2002, 2003 and 2004 as recorded in the Nairobi Stock Exchange Handbook and the Company's financial statements.

The dependent variables consist of the binary state of either 1 for company that paid dividend and 0 for company not paying dividend for each year under study. The Independent variables consist of the financial ratios are calculated from the raw data obtained for each respective financial year.

## 3.5 DATA ANALYSIS

### 3.5.1 Steps to Data Analysis:

Step 1. Classify the NSE firms into Dividend Payers (1) and Dividend Non-payers (0).

Step 2. Calculate the Financial Ratios.

Step 3. Present descriptive statistics for the financial ratios in step 2 and comment.

Do a Correlation Analysis Matrix and drop ratios that are highly related.

Step 4. Carry out Univariate Analysis. Evaluate one ratio at a time to asses its potential in predicting dividends.

Step 5. Multivariate Logistic regression for the significant variables obtained in step 4 above.

### 3.5.2 Binary Logistic Regression:

Logistic regression models have been used by a number of researchers in corporate finance: Obeua (1999) used the technique of logistic binary regression to differentiate failed versus surviving companies in Thailand; Anna Lee et al, (1996) used logit binary regression analysis to determine the factors which predict merger and acquisition target companies; Ohlson, (1980) extended the research in the area of financial ratio analysis using a logit model with financial ratios from the seventies and found that the logit model performed better than multiple discriminant analysis in predicting bankruptcy.

This study uses the Statistical method of Binary Logistic Regression for analysing the data. The main reason for using logistic regression is because of its robustness in the assumptions. This is particularly important because the NSE is not a perfect

market, the number of firms is not large enough and as such the assumptions of normality, which is normally required for the other techniques like the Linear Regression, may not hold. The independent or predictor variables in logistic regression can take any form; there is no assumption about the distribution of the independent variables. They do not have to be normally distributed, linearly related or of equal variance within each group (Tabachnick and Fidell, 1996).

Financial ratio variables, which generally constitute the independent variables in corporate finance models, exhibit distributions which are generally non-normal, thus giving rise to assumption violations for most conventional techniques. Barnes (1982) finds that distributions of ratios derived from financial statements are generally skewed, possibly as a result of deviation from strict proportionality between ratio components. Lee (1985) argued that cross-sectional financial data can be affected by many systematic factors and such data will not be identically distributed. As a result, he argues that the underlying stochastic processes often cannot be correctly identified, and he explores methods to 'normalise' ratio distributions before modelling. Hence the strength of logistic regression here is the lack of variable distribution requirements.

Binary Logistic regression is used to predict a categorical, usually dichotomous variable ("yes" or "no") from a set of predictor variables1. It is customary to code the two states as either 0 or 1. With this coding system, the mean of the distribution is equal to the proportion of 1's in the distribution. The mean of a binary distribution so coded is denoted as P, the proportion of 1's. The proportion of zeros is (1-P), which is sometimes denoted as Q. The variance of such a distribution is PQ, and the standard deviation is (PQ)1/2.

Logistic regression rather than ordinary linear regression is used because using linear regression; the predicted values will become greater than one and less than zero if moved far enough on the X-axis yet such values are theoretically inadmissible. The other assumption of linear regression is that the variance of Y is

[1]Logistic regression can also be applied to ordered categories with more than two categories, the case of Multinomial Logistic Regression.

constant across values of X (homoscedasticity) yet again this cannot be the case with a binary variable, because the variance is PQ such that when 50 percent of the cases are 1's, the variance is .25, its maximum value and as we move to more extreme values, the variance decreases. The Logistic regression model is given as:

$$\text{Ln}[p/(1-p)] = \alpha + \beta X$$

Where:

p is the probability that the event Y occurs, p(Y=1)

p/(1-p) is the "odds ratio"

Ln[p/(1-p)] is the log odds ratio, or "logit"

The logistic distribution constrains the estimated probabilities to lie between 0 and 1. Thus the estimated probability is:

$$P = \frac{e^{\alpha+\beta x}}{1 + e^{\alpha+\beta x}} = \frac{1}{1 + e^{-(\alpha+\beta x)}}$$

Such that:

If $\alpha + \beta X = 0$, then $p = 0.50$

As $\alpha + \beta X$ gets really big, p approaches 1

As $\alpha + \beta X$ gets really small, p approaches 0

The coefficients of the model are estimated using the Maximum Likelihood Estimation (MLE). The likelihood function (L) measures the probability of observing the particular set of dependent variable values (p1, p2, ..., pn) that occur in the sample: L = Prob (p1* p2* * * pn)

The higher the L, the higher the probability of observing the p's in the sample. MLE involves finding the coefficients ($\alpha$, $\beta$) that makes the log of the likelihood function (LL < 0) as large as possible. Or, finds the coefficients that make -2 times the log of the likelihood function (-2LL) as small as possible. The maximum likelihood

estimates solve the condition: $\{Y - p(Y=1)\}Xi = 0$; Summed over all observations, i = 1,…,n

**Interpreting Coefficients:**

Given that $Ln[p/(1-p)] = \alpha + \beta X$

The slope coefficient ($\beta$) is interpreted as the rate of change in the "log odds" as X changes. Since, $p = 1/[1 + \exp(-\alpha - \beta X)]$. The marginal effect of a change in X on the probability is $f(\beta X)\beta$. Perhaps the interpretation of the "odds ratio" is more intuitive. By rearranging the model it can be shown that: $[p/(1-p)] = \exp(\alpha + \beta X)$; Hence $\exp(\beta)$ is the effect of the independent variable on the "odds ratio".

**Hypothesis Testing:**

The Wald statistic for the $\beta$ coefficient is:

Wald = $[\beta /s.e.B]2$ ; which is distributed chi-square with 1 degree of freedom.

The "Partial R" (in SPSS output) is $R = \{[(Wald-2)/(-2LL(\alpha)]\}^{1/2}$

**Evaluating the Performance of the Model:**

There are several statistics, which can be used for comparing alternative models or evaluating the performance of a single model. These include Model Chi-Square, Percent Correct Predictions and Pseudo-R2

**Model Chi-Square:**

The model likelihood ratio (LR), statistic is

$LR[i] = -2[LL(\alpha) - LL(\alpha, \beta)]$

{Or, as read in SPSS printout:

LR[i] = [-2LL (of beginning model)] - [-2LL (of ending model)]}

The LR statistic is distributed chi-square with i degrees of freedom, where i is the number of independent variables.

Use the "Model Chi-Square" statistic to determine if the overall model is statistically significant.

**Percent Correct Predictions:**

The "Percent Correct Predictions" statistic assumes that if the estimated p is greater than or equal to .5 then the event is expected to occur and not occur otherwise. By assigning these probabilities 0s and 1s and comparing these to the actual 0s and 1s, the % correct Yes, % correct No, and overall % correct scores are calculated.

**Pseudo-$R^2$**

One psuedo-R2 statistic is the McFadden's-R2 statistic:

McFadden's-R2 = 1 - [LL($\alpha$,$\beta$)/LL($\alpha$)]

{= 1 - [-2LL($\alpha$, $\beta$)/-2LL($\alpha$)] (from SPSS printout)} ; Where the R2 is a scalar measure, which varies between 0 and (somewhat close to) 1 much like the R2 in a LP model.

Based on this theoretical foundation, Backward Step-wise Binary Logistic regression is used to determine the variables that best fits the model. Using SPSS software, the values of $\alpha$ and $\beta$ are obtained for the fitted logistic model; hence the value of P (Probability to pay dividends) could be calculated for a given set of Xi (the financial ratios).

# CHAPTER 4: EMPIRICAL FINDINGS

## 4.1 DESCRIPTIVE STATISTICS:

The descriptive statistics presented in appendix 3 provide some crucial information about the distribution nature of the financial ratios and existence of any trends or lack of it over the five years under the study. The statistics computed includes the minimum and the maximum values for each of the variables for each of the years. From this statistic we can determine the range and rank the firms based on that variable. The mean gives the representative value for a variable for all the firms under consideration. How a particular firm's value differs or deviates from the mean is measured by variance and the standard deviation.

Prima facie tests of normality can be obtained from the calculated values of Skewness and Kurtosis. Perfect symmetry is said to exist when the mean, mode and median are equal, giving the balanced bell shaped frequency distribution curve. If the calculated values of skewness are around zero then there are indications of normality as opposed to values far from zero either positive or negative. Kurtosis on the other hand measures the steepness or peakedness of a distribution. Too steep (leptokurtic) or too flat (platykurtic) would indicate lack of normality. Gentle peakedness (mesokurtic) would indicate normal distribution. Mesorkurtic Kurtosis is represented by a value of 0.25. Hence kurtosis values above or below 0.25 would indicate lack of normal distribution. Table 2 below summarises the descriptive statistics for the five years period. *(Note the detailed descriptive statistics is given in appendix 3).*

From Table 2, it is observed that the mean value for the current ratio for all the firms has remained fairly stable at about 2. This means that on average the listed firms have their current assets twice the value of their current liabilities. On the other hand, the variation on the Price earning ratio is very great as shown by its corresponding standard deviations. The wide variance is due to the variations in profitability for the different firms in any given year. Whereas some companies posted huge profits, other posted big loses resulting in the big variations.

The dividend yields have remained stable over the five years but the dividend payout ratios have been increasing from 2000 to 2002 then went down in the years 2003 and 2004.

**Table 2:**

| YEAR | 2004 | | | | 2003 | | | | 2002 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| VAR | Mean | Std. Dev | Skew | Kurt | Mean | Std. Dev | Skew | Kurt | Mean | Std. Dev | Skew | Kurt |
| CR | 2.07 | 2.19 | 3.29 | 12.98 | 2.01 | 2.15 | 2.88 | 11.33 | 2.12 | 2.94 | 4.24 | 21.87 |
| PE | 9.32 | 19.47 | (3.38) | 19.51 | 10.25 | 24.09 | 0.24 | 3.63 | 7.03 | 25.66 | 1.15 | 8.02 |
| DIVYD | 5.11 | 7.21 | 3.22 | 13.55 | 3.38 | 4.00 | 2.40 | 9.16 | 5.71 | 5.51 | 0.72 | (0.08) |
| DIVPAY | 40.26 | 50.91 | 1.47 | 3.85 | 59.62 | 86.45 | 2.99 | 11.33 | 79.43 | 319.14 | 6.33 | 42.36 |
| PRICEBK | 1.65 | 1.45 | 1.67 | 2.91 | 1.71 | 1.93 | 2.23 | 5.43 | 0.73 | 0.94 | 4.07 | 20.69 |
| DEBTEQ | 5.06 | 23.94 | 6.52 | 43.23 | 0.95 | 3.08 | 4.92 | 25.14 | 0.56 | 1.15 | 3.14 | 9.08 |
| ROI | 0.07 | 0.24 | (4.82) | 28.76 | 0.06 | 0.14 | (0.93) | 5.12 | 0.05 | 0.14 | (2.21) | 9.87 |
| ROE | (0.07) | 1.13 | (4.81) | 24.41 | (0.12) | 0.99 | (5.14) | 27.89 | 0.05 | 0.22 | (0.78) | 7.33 |
| TURNTA | 1.99 | 2.93 | 2.94 | 9.46 | 2.25 | 4.55 | 4.67 | 24.90 | 2.33 | 4.45 | 4.50 | 23.25 |
| TURNEQ | 4.56 | 11.27 | 5.29 | 31.18 | 9.90 | 50.20 | 6.79 | 46.40 | 3.94 | 9.07 | 4.33 | 19.12 |
| WCTA | 0.07 | 0.48 | (3.69) | 18.97 | (0.85) | 2.45 | (2.43) | 5.10 | (0.68) | 2.49 | (2.44) | 5.79 |
| INCEAT | 1.95 | 6.48 | 4.55 | 24.68 | (0.39) | 4.08 | (4.46) | 26.51 | 0.32 | 3.77 | 0.28 | 17.26 |

| YEAR | 2001 | | | | 2000 | | | |
|---|---|---|---|---|---|---|---|---|
| VAR | Mean | Std. Dev | Skew | Kurt | Mean | Std. Dev | Skew | Kurt |
| CR | 2.08 | 2.95 | 3.44 | 13.25 | 1.99 | 2.31 | 2.92 | 10.44 |
| PE | 113.31 | 708.41 | 6.83 | 46.79 | (2.41) | 45.32 | (5.05) | 29.04 |
| DIVYD | 5.98 | 5.82 | 0.58 | (0.81) | 4.93 | 5.07 | 1.20 | 1.83 |
| DIVPAY | 51.18 | 80.92 | 2.23 | 9.99 | 43.15 | 48.26 | 1.29 | 2.74 |
| PRICEBK | 0.73 | 1.01 | 4.68 | 25.65 | 0.76 | 0.65 | 1.95 | 4.58 |
| DEBTEQ | 0.42 | 1.15 | 3.64 | 14.56 | 0.24 | 0.64 | 2.44 | 16.71 |
| ROI | 0.05 | 0.22 | 0.36 | 11.52 | 0.02 | 0.22 | (2.81) | 11.93 |
| ROE | (0.04) | 0.58 | (3.13) | 13.15 | 0.04 | 0.27 | (1.97) | 6.60 |
| TURNTA | 2.19 | 3.98 | 3.39 | 11.92 | 2.08 | 3.24 | 2.82 | 7.78 |
| TURNEQ | 3.10 | 6.16 | 2.68 | 8.07 | 2.31 | 4.52 | 2.85 | 11.00 |
| WCTA | (0.48) | 1.81 | (3.50) | 12.87 | (0.43) | 1.69 | (3.05) | 9.52 |
| INCEAT | 0.27 | 2.89 | 1.69 | 5.15 | - | - | - | - |

The mean of Return on Investment (ROI) has been growing marginally from 2000 to 2004. The Average working capital to total assets has been negative for the years 2000 to 2003. This suggests that most of the firms listed at the NSE used debt or borrowings to finance their operations.

## 4.2 CORRELATION ANALYSIS:

**Spearman Rank Correlation Coefficient (ρ)** is a nonparametric (distribution-free) rank statistic proposed by Spearman in 1904 as a measure of the strength of the associations between two variables (Lehmann and D'Abrera 1998). The Spearman rank correlation coefficient rather than the Pearson correlation is used to analyse the data since no assumptions on normality and linearity have been made on the Independent variables. The Spearman rank correlation coefficient can be used to give an R-estimate, and is a measure of monotone association that is used when the distribution of the data make Pearson's correlation coefficient undesirable or misleading. Unlike the Pearson product-moment correlation coefficient, it does not require the assumption that the relationship between the variables is linear, nor does it require the variables to be measured on interval scales; it can be used for variables measured at the ordinal level.

In principle, ρ is simply a special case of the Pearson product-moment coefficient in which the data are converted to ranks before calculating the coefficient. In practice, however, a simpler procedure is normally used to calculate ρ. The raw scores are converted to ranks, and the differences D between the ranks of each observation on the two variables are calculated. ρ is then given by:

$$\rho = 1 - \frac{6\sum D^2}{N(N^2-1)}$$ Where:

D = the difference between the ranks of corresponding values of X and Y, and N = the number of pairs of values. The formula becomes more complicated in the presence of tied ranks, but unless the tie bands are large, the effect of ignoring them is small.

To test whether an observed value of ρ is significantly different from zero, the observed value can be compared with published tables for various levels of significance. For sample sizes above about 20, the variable;

$$t = \frac{\rho}{\sqrt{(1-\rho^2)/(n-2)}}$$

has a Student's t-distribution in the null case (zero correlation). In the non-null case (i.e. to test whether an observed ρ is significantly different from a theoretical value, or whether two observed ρs differ significantly) tests are much less powerful, though the t-distribution can again be used.

**Logistic Coefficients & Correlation:** Note that a logistic coefficient may be found to be significant when the corresponding correlation is found to be not significant, and vice versa. To make certain global statements about the significance of an independent variable, both the correlation and the logit should be significant. Among the reasons why correlations and logistic coefficients may differ in significance are (1) logistic coefficients are partial coefficients, controlling for other variables in the model, whereas correlation coefficients are uncontrolled; (2) logistic coefficients reflect linear and nonlinear relationships, whereas correlation reflects only linear relationships; and (3) a significant logit means there is a relation of the independent variable to the dependent variable for selected control groups, but not necessarily overall.

A generalisation of the Spearman coefficient is useful in the situation where there are three or more conditions, a number of subjects are all observed in each of them, and we predict that the observations will have a particular order.
The complete results on the Spearman Correlation analysis are given in appendix 4. The significant variables at 99% confidence level are summarized in Table 3 below:

**Table 3:**

| Year | Variables | Spearman Coefficient | Variables | Spearman Coefficient |
|---|---|---|---|---|
| **2004** | DIVPAY, PE | 0.436 | ROE, DIVPAY | 0.388 |
| | DIVPAY, DIVYD | 0.692 | ROE, PRICEBK | 0.496 |
| | PRICEBK, DIVPAY | 0.444 | ROE, ROI | 0.825 |
| | ROI, DIVYD | 0.449 | TURNEQ, TURNTA | 0.874 |
| | ROI, DIVPAY | 0.544 | WCTA, CR | 0.778 |
| | ROI, PRICEBK | 0.619 | WCTA, DEBTEQ | -0.451 |
| | ROE, PE | 0.383 | INCEAT, ROE | 0.407 |
| | | | | |
| **2003** | DIVYD, CR | 0.381 | ROI, DEBTEQ | -0.464 |
| | DIVYD, PE | 0.531 | ROE, DIVPAY | 0.409 |
| | DIVPAY, CR | 0.410 | ROE, PRICEBK | 0.629 |
| | DIVPAY, PE | 0.657 | ROE, DEBTEQ | -0.400 |
| | DIVPAY, DIVYD | 0.877 | ROE, ROI | 0.971 |
| | ROI,PE | 0.376 | TURNEQ, TURNTA | 0.928 |
| | ROI, DIVPAY | 0.404 | INCEAT, ROI | 0.619 |
| | ROI, PRICEBK | 0.658 | INCEAT, ROE | 0.632 |
| | | | | |
| **2002** | DIVPAY, PE | 0.546 | ROE, DIVYD | 0.562 |
| | DIVPAY, DIVYD | 0.733 | ROE, DIVPAY | 0.473 |
| | PRICEBK, PE | 0.454 | ROE, PRICEBK | 0.373 |
| | ROI, DIVYD | 0.491 | ROE, ROI | 0.855 |
| | ROI, DIVPAY | 0.451 | TURNEQ, TURNTA | 0.923 |
| | ROI, PRICEBK | 0.397 | WCTA, CR | 0.814 |
| | | | | |
| **2001** | DIVPAY, PE | 0.591 | ROE, ROI | 0.804 |
| | DIVPAY, DIVYD | 0.632 | TURNEQ, DEBTEQ | 0.392 |
| | ROI, DIVYD | 0.393 | TURNEQ, TURNTA | 0.707 |
| | ROE, DIVYD | 0.556 | WCTA, CR | 0.872 |
| | | | | |
| **2000** | DIVYD, PE | 0.425 | ROI, PRICEBK | 0.575 |
| | DIVPAY, CR | 0.384 | ROE, DIVYD | 0.663 |
| | DIVPAY, PE | 0.703 | ROE, DIVPAY | 0.483 |
| | DIVPAY, DIVYD | 0.741 | ROE, PRICEBK | 0.400 |
| | PRICEBK, DIVPAY | 0.402 | ROE, ROI | 0.837 |
| | ROI, PE | 0.442 | TURNEQ, TURNTA | 0.718 |
| | ROI, DIVYD | 0.727 | WCTA, CR | 0.839 |
| | ROI, DIVPAY | 0.598 | WCTA, DIVPAY | 0.472 |

## 4.3 UNIVARIATE ANALYSIS:

Univariate binary logistic regression analysis is done for each variable to determine the significance of each variable. This is done by considering the response variable with only one variable at a time. The complete regression results (SPSS output) for

all the variables for all the years is given in appendix 5. The variables that are significant at 90% confidence level are the only ones considered for the multivariate analysis to establish the overall multivariate model.

Table 4 below gives the summary of the variables that were found to be significant at 90% confidence level:

*(The complete SPSS output is given in appendix 5)*

**Table 4:**

| Variable | 2004 | 2003 | 2002 | 2001 | 2000 |
|---|---|---|---|---|---|
| CR | X | X | X | √ | X |
| PE | X | √ | X | X | √ |
| DivYd | X | X | √ | X | √ |
| DivPay | √ | X | X | √ | √ |
| PriceBk | X | X | √ | √ | X |
| DebtEq | X | X | X | √ | X |
| ROI | √ | √ | √ | √ | √ |
| ROE | X | √ | √ | X | √ |
| TurnTA | √ | √ | X | X | √ |
| TurnEq | √ | √ | X | √ | X |
| WCTA | √ | X | X | X | X |
| IncEAT | √ | X | X | √ | - |

Key:
√ – Significant Variable at 0.10 significance level
X – Not Significant at 0.10 significance level

The variables that are found to be significant are then subjected to the multivariate logistic regression. To generate the best fitted model, Backward (Wald) stepwise logistic regression is used such that the highly correlated variables and the least significant ones are eliminated through an iterative process until the best overall model is obtained.

## 4.4 MULTIVARIATE LOGISTIC REGRESSION

Logistic regression can be used to predict a dependent variable on the basis of independents and to determine the percent of variance in the dependent variable explained by the independents; to rank the relative importance of independents; to assess interaction effects; and to understand the impact of covariate control

variables. Logistic regression applies maximum likelihood estimation after transforming the dependent into a logit variable (the natural log of the odds of the dependent occurring or not). In this way, logistic regression estimates the probability of a certain event occurring.

Note that logistic regression calculates changes in the log odds of the dependent, not changes in the dependent itself as OLS regression does. Unlike OLS regression, however, logistic regression does not assume linearity of relationship between the independent variables and the dependent, does not require normally distributed variables, does not assume homoscedasticity, and in general has less stringent requirements.

It does, however, require that observations are independent and that the logit of the independent variables is linearly related to the dependent. The success of the logistic regression can be assessed by looking at the classification table, showing correct and incorrect classifications of the dichotomous, ordinal, or polytomous dependent. Also, goodness-of-fit tests such as model chi-square are available as indicators of model appropriateness as is the Wald statistic to test the significance of individual independent variables. SPSS generated output for the analysis is shown in Appendix 6. The SPSS table which lists the b coefficients also lists the standard error of b, the Wald statistic and its significance, and the odds ratio (labelled Exp(b) ) as well as confidence limits on the odds ratio.

The tables of the output are interpreted as follows:

**Logit coefficients (logits),** also called unstandardized logistic regression coefficients or effect coefficients or simply "parameter estimates," correspond to b coefficients in OLS regression. Both can be used to construct prediction equations and generate predicted values, which in logistic regression are called logistic scores.

**R-squared**. There is no widely-accepted direct analogy to OLS regression's $R^2$. This is because an $R^2$ measure seeks to make a statement about the "percent of variance explained," but the variance of a dichotomous or categorical dependent variable

depends on the frequency distribution of that variable. For a dichotomous dependent variable, for instance, variance is at a maximum for a 50-50 split and the more lopsided the split, the lower the variance. This means that R-squared measures for logistic regressions with differing marginal distributions of their respective dependent variables cannot be compared directly. Nonetheless, a number of logistic R-squared measures have been proposed, all of which should be reported as approximations to OLS $R^2$, not as actual percent of variance explained. Note that $R^2$-like measured are not goodness-of-fit tests but rather attempt to measure strength of association. For small samples, for instance, an $R^2$-like measure might be high when goodness of fit was unacceptable by model chi-square or some other test.

**Cox and Snell's R-Square** is an attempt to imitate the interpretation of multiple R-Square based on the likelihood, but its maximum can be (and usually is) less than 1.0, making it difficult to interpret.

**Nagelkerke's R-Square** is a further modification of the Cox and Snell coefficient to assure that it can vary from 0 to 1. That is, Nagelkerke's R2 divides Cox and Snell's R2 by its maximum in order to achieve a measure that ranges from 0 to 1. Therefore Nagelkerke's R2 will normally be higher than the Cox and Snell measure but will tend to run lower than the corresponding OLS R2.

**Classification tables are the 2 x 2 tables** in the logistic regression output for dichotomous dependents, or the 2 x n tables for ordinal and polytomous logistic regression, which tally correct and incorrect estimates. The columns are the two predicted values of the dependent, while the rows are the two observed (actual) values of the dependent. In a perfect model, all cases will be on the diagonal and the overall percent correct will be 100%. If the logistic model has homoscedasticity (not a logistic regression assumption), the percent correct will be approximately the same for both rows. Since this takes the form of a cross tabulation, measures of association (SPSS uses lambda-p and tau-p) may be used in addition to percent correct as a way of summarizing the strength of the table.

**Log likelihood:** A "likelihood" is a probability, specifically the probability that the observed values of the dependent may be predicted from the observed values of the independents. Like any probability, the likelihood varies from 0 to 1. The log likelihood (LL) is its log and varies from 0 to minus infinity (it is negative because the log of any number less than 1 is negative). LL is calculated through iteration, using maximum likelihood estimation (MLE). Log likelihood is the basis of two alternative tests of a logistic model, deviance chi-square and the more widely used model chi-square test.

**Model chi-square (likelihood ratio test).** The "model chi-square test," also called the "log-likelihood test," is based on -2LL (deviance). It is an alternative to the Wald statistic, discussed below. Note that the chi-square value for -2LL which appears in this table is sometimes called "model chi-square" and provides the usual significance test for a logistic model. Log-likelihood tests appear as "Sig." in SPSS output for the "Final" row in the "Model Fitting Information" for binomial logistic regression, or in the "Sig." column of the "Model" row of the "Omnibus Tests of Model Coefficients" table in multinomial logistic regression. A well-fitting model is significant at the .05 level or better.

If the log-likelihood test statistic shows a small p value (<=.05) for a model with a large effect size, ignore contrary findings based on the Wald statistic (discussed below; it is biased toward Type II errors in such instances) and assume good model fit overall.

**Wald statistic (test):** The Wald statistic is commonly used to test the significance of individual logistic regression coefficients for each independent variable (that is, to test the null hypothesis in logistic regression that a particular logit (effect) coefficient is zero). It is the ratio of the unstandardized logit coefficient to its standard error. The Wald statistic and its corresponding p probability level is part of SPSS output in the section "Variables in the Equation." This corresponds to significance testing of b coefficients in OLS regression. In this study independent whose effects not significant by the Wald statistic have been dropped.

**Hosmer and Lemeshow's Goodness of Fit Test,** tests the null hypothesis that the data were generated by the model fitted by the researcher. The test divides subjects into deciles based on predicted probabilities, and then computes a chi-square from observed and expected frequencies. Then a probability (p) value is computed from the chi-square distribution with 8 degrees of freedom to test the fit of the logistic model. If the Hosmer and Lemeshow Goodness-of-Fit test statistic is .05 or less, we reject the null hypothesis that there is no difference between the observed and model-predicted values of the dependent. (This means the model predicts values significantly different from what they ought to be, which is the observed values).

The overall results obtained can be summarised as in Table 5 follows: (Complete SPSS output results given in Appendix 6)

**Table 5:**

| **2004** | | | **2003** | | | **2002** | | |
|---|---|---|---|---|---|---|---|---|
| Var | B | Sig | Var | B | Sig | Var | B | Sig |
| DivPay | .076 | .008 | PE | .150 | .002 | DivYd | .568 | .002 |
| Const | -.516 | .298 | Const | -.317 | .586 | PBk | 4.518 | .026 |
| | | | | | | Const | -3.356 | .008 |

**(Table 5 continued)**

| **2001** | | | **2000** | | |
|---|---|---|---|---|---|
| Var | B | Sig | Var | B | Sig |
| CR | 1.591 | .043 | DivYd | .675 | .017 |
| DivPay | .033 | .011 | DivPay | .037 | .089 |
| Const. | -1.310 | .141 | Const | -1.879 | .011 |

Thus the equations that could be used to predict the probability (likelihood) of a company paying dividends for each of the years under study are given as follows:

**Table 6:**

| YEAR | LOGISTIC MODEL EQUATION |
|---|---|
| 2004 | Log (p/1-p) = -0.516 + 0.076*Divpay |
| 2003 | Log (p/1-p) = -0.317 + 0.150*PE |
| 2002 | Log (p/1-p) = -3.356 + 0.568*DivYd + 4.518*PBk |
| 2001 | Log (p/1-p) = -1.310 + 1.591*CR + 0.033*DivPay |
| 2000 | Log (p/1-p) = -1.879 + 0.675*DivYd + 0.037*DivPay |

Where:

Log = Natural Logarithm

P = Probability that a firm will pay dividends

DivPay = Dividend Payout Ratio

PE = Price Earning Ratio

DivYd = Dividend Yield

PBK = Price to Book Value of a share

CR = Current Ratio

The summaries of overall models' diagnostics for the fitted model are summarized in Table 7 below. The analysis was run through an iterative procedure until the best results are obtained using the maximum likelihood criterion and the insignificant variables are eliminated to result with the best representative model.

The final iteration steps across all the years show that most of the variables have been eliminated and do not count in the overall model this is partly due to the high level of correlation between the independent variables; the information capture in one variable is sufficient to represent a number of the variables and their inclusion in the model do not add any much value as such.

**Table 7:**

**Model Fitness Summaries**

| 2004 | Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square | 2003 | Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|---|---|---|---|---|---|
| | 1 | 24.398 | 0.483 | 0.691 | | 1 | 28.327 | 0.478 | 0.669 |
| | 2 | 24.417 | 0.483 | 0.690 | | 2 | 28.332 | 0.478 | 0.669 |
| | 3 | 24.549 | 0.481 | 0.688 | | 3 | 28.350 | 0.478 | 0.669 |
| | 4 | 26.965 | 0.453 | 0.647 | | 4 | 29.249 | 0.467 | 0.655 |
| | 5 | 28.066 | 0.439 | 0.628 | | **5** | **31.424** | **0.442** | **0.619** |
| | **6** | **32.290** | **0.384** | **0.549** | | | | | |
| **2002** | **Step** | **-2 Log likelihood** | **Cox & Snell R Square** | **Nagelkerke R Square** | **2001** | **Step** | **-2 Log likelihood** | **Cox & Snell R Square** | **Nagelkerke R Square** |
| | 1 | 19.543 | 0.552 | 0.783 | | 1 | 28.487 | 0.383 | 0.577 |
| | 2 | 20.684 | 0.541 | 0.768 | | 2 | 28.519 | 0.382 | 0.576 |
| | **3** | **23.381** | **0.514** | **0.729** | | 3 | 28.814 | 0.378 | 0.570 |
| | | | | | | 4 | 30.344 | 0.358 | 0.539 |
| | | | | | | **5** | **33.958** | **0.306** | **0.462** |
| **2000** | **Step** | **-2 Log likelihood** | **Cox & Snell R Square** | **Nagelkerke R Square** | | | | | |
| | 1 | 19.948 | 0.564 | 0.786 | | | | | |
| | 2 | 20.004 | 0.563 | 0.785 | | | | | |
| | 3 | 20.363 | 0.560 | 0.780 | | | | | |
| | 4 | 20.616 | 0.557 | 0.777 | | | | | |
| | **5** | **21.660** | **0.547** | **0.763** | | | | | |

Using the Model Equation; Log (p/1-p) = Constant + BXi; the appropriate likelihood (probability) of a firm paying dividend can be calculated from the coefficients given above.

$$\text{Probability (p)} = \frac{1}{1 + e^{-(\alpha+\beta x)}}$$

The probabilities for the firms paying dividend using the models obtained from the multivariate logistic regression results have been tabulated in Appendix 7. The findings indicate that firms that paid dividend in each of the years analysed score high probabilities as opposed to the firms that did not pay dividends.

For Example in 2004, B.O.C Kenya which paid dividends has a calculated probability of 0.9752, while A. Baumann Company which did not pay dividends has

a probability of only 0.3737. The Tables given in appendix 7 gives the calculated probabilities of all the companies for the five years. The findings correctly attribute high probabilities to the firms that paid dividends and low probabilities to firms that did not pay dividends; however, the following exceptions are noted:

**Table 8:**

| YEAR | COMPANY | Paid Div? | Probability | Remarks |
|---|---|---|---|---|
| **2004** | E.A. Portland Cement | Y | 0.0068 | The low probability despite paying dividends is attributed to the negative dividend payout ratio i.e. Company made losses but still paid dividends. |
| | Rea Vipingo | Y | 0.3803 | Low probability due to the low dividend payout. |
| **2003** | Kenya Orchads Ltd | Y | 0.2296 | The low probability due to the negative price earning ratio. Made losses but paid dividend. |
| | Eaagads | Y | 0.0079 | The low probability due to the negative price earning ratio. Made losses but paid dividend |
| | Housing Finance | N | 0.9759 | Did not pay dividend despite having high P/E ratio. |
| | Olympia Capital Holding | N | 0.9247 | Did not pay dividend despite having high P/E ratio. |
| **2001** | A. Baumann & Co. Ltd | Y | 0.1199 | The low probability despite paying dividends is attributed to the negative dividend payout ratio i.e. Company made losses but still paid dividends. |
| | Housing Finance | Y | 0.2357 | Low probability due to the low dividend payout. |
| **2000** | Kakuzi | Y | 0.0830 | Low probability due to the negative payout ratio |

# CHAPTER 5: SUMMARY & CONCLUSIONS

## 5.1 CONCLUSION & IMPLICATIONS

From the observed results the following conclusions can be made:

(i) The null hypothesis that financial ratios are not useful in estimating the likelihood of firm paying dividends is rejected. This is because for all the five years under study at least one ratio has been significant at 95% confidence level. This demonstrates that the financial ratios can at least differentiate between the companies likely to pay dividends and the ones that will not.

(ii) From the descriptive statistics (Financial years 2000-2004) of the Nairobi Stock Exchange Companies' financial ratios, their distributions are not normally distributed. Hence analyses requiring the assumptions of normality are not appropriate when using the ratios as the independent variables. Logistic regression model does not assume normality hence its use is appropriate for the data.

(iii) Dividend Payout, Price Earnings Ratio, Dividend Yield, Price to Book Value are the most significant determinants of dividend payments for the companies listed at the NSE. These factors determine the likelihood of a firm paying dividends or not. These were the residual factors after running the stepwise backward (Wald) logistic regression which retains only the most significant variables.

(iv) For the five years studied Dividend payout was a significant factor in three out of the five year i.e. in 2004, 2001 and 2000. While Price Earnings ratio was only significant in the overall model for year 2003 only. Dividend yield was significant in 2002 and 2000. These results show that the determinants are not pervasive through out the years.

In conclusion, it can be noted that the existing and potential shareholders of listed firms at the Nairobi Stock Exchange could use these findings to establish how likely

their firms or the firms they intend to invest in would pay dividends and hence construct their investment portfolios appropriately. The findings of this study could assist in solving part of the agency conflicts between the directors and shareholders of publicly quoted firms as firms' managers and directors could use the model to defend their dividend policy decisions.

## 5.2 LIMITATIONS OF THE STUDY

(i) Being an exploratory study the period was limited to only five years but no clear pattern or trend has emerged, Perhaps if a longer period had been used a definite trend could have been observed. Different variables have been significant for the different years. Some companies paid dividends in one year only to fail paying in the subsequent year even with their financial ratios not changing significantly. Hence some of the companies have not been consistent as to be payers or non payers which makes a longer period analysis necessary to separate consistently paying firms from non paying firms.

(ii) The study considered the ratios across all the listed companies. Given that the companies comprise different sectors, the results may be different if each sector is analysed separately. For example the ratios for the agricultural sector companies may not be the same with those of the financial and investment sector.

## 5.3 SUGGESTIONS FOR FURTHER RESEARCH

(i) It appears that the factors that prompt companies to pay dividends or not are not limited to the financial factors captured in the financial statements. More non financial factors such as management styles at the companies, quality of staff, auditors' opinions, shareholders perception of risk and returns among other non quantitative variables should be investigated to their effects in firms' dividend policies. Logistic regression is robust enough tool that is capable of analyzing such qualitative variables.

(ii) Further studies need to be carried out sector by sector and covering perhaps a longer time period of ten to fifteen years. The same analysis could be extended by using other non parametric tests such as Mann-Whitney U test and Wilcoxon rank-sum tests that are used to compare two independent samples. By using different approaches the dividend puzzle in corporate finance literature as to why firms pay dividends might be resolved.

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# APPENDIX

Appendix 1: NSE Listed Firms

Appendix 2: Computed Ratios used in analysis

Appendix 3: Descriptive Statistics Results

Appendix 4: Correlation Analysis Results

Appendix 5: Univariate Logistic Regression Results

Appendix 6: Multivariate Logistic Regression Results

Appendix 7: Computed Probabilities of Firms Paying Dividends

## Appendix I: NSE LISTED FIRMS AS AT 31.12.04

A.Baumann & Co. Ltd
Athi River Mining
B.O.C Kenya Ltd
Bamburi Cement Ltd
Barclays Bank Ltd
British American Tobacco Kenya Ltd
C.F.C Bank Ltd
Car & General (K) Ltd
Carbacid Investments Ltd
City Trust Ltd
CMC Holdings Ltd
Crown Berger Ltd
Diamond Trust Bank Kenya Ltd
E.A Portland Cement Ltd
E.A.Cables Ltd
Eaagads Ltd
East Africal Breweries Ltd
Express Ltd
Housing Finance Company Ltd
Hutchings Biemer Ltd*
I.C.D.C Investments Co.Ltd
Jubilee Insurance Co. Ltd
Kakuzi
Kapchorua Tea Co. Ltd
Kenya Airways Ltd
Kenya Commercial Bank Ltd
Kenya Oil Co.Ltd
Kenya Orchards Ltd
Kenya Power & Lighting Ltd
Limuru Tea Co. Ltd
Marshalls (E.A.) Ltd
Mumias Sugar Co. Ltd
Nation Media Group
National Bank of Kenya Ltd
NIC Bank Ltd
Olympia Capital Holdings Ltd
Pan Africa Insurance Holdings Ltd
Rea Vipingo Plantations Ltd
Sameer Africa Ltd
Sasini Tea & Coffee Ltd
Standard Chartered Bank Ltd
Standard Group Ltd
Total Kenya Ltd
TPS Ltd (Serena)
Uchumi Supermarket Ltd
Unga Group Ltd
Unilever Tea Kenya Ltd
Williamson Tea Kenya Ltd

**(SOURCE: NSE HANDBOOK 2004/5)**

| | 2004 | DIV | Current Ratio | P/E Ratio | Dividend Yield | DividendPayout Ratio | Price to Book Value | Debt to Equity Ratio | Return on Investment | Return on Equity | Turnover to Total Assets | Turnover to Equity Capital | Working Capital to Total Assets | Growth in Earnings After Tax |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Firm | Y | CR | PE | DivYd | DivPay | PriceBk | DebtEq | ROI | ROE | TurnTA | TurnEq | WcTA | IncEAT |
| 1 | Hutchings Biemer Ltd* | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** |
| 2 | Athi River Mining | 1 | 1.04 | 11.95 | - | - | 1.02 | 0.34 | 0.09 | 0.12 | 1.20 | 1.66 | 0.02 | 0.20 |
| 3 | B.O.C Kenya Ltd | 1 | 2.98 | 16.71 | 3.28 | 54.87 | 2.23 | 0.04 | 0.13 | 0.14 | 0.69 | 0.72 | 0.44 | 0.05 |
| 4 | Bamburi Cement Ltd | 1 | 1.81 | 20.07 | 6.44 | 129.30 | 2.69 | 0.24 | 0.13 | 0.17 | 0.96 | 1.25 | 0.12 | 0.49 |
| 5 | Barclays Bank Ltd | 1 | 0.69 | 11.03 | 7.00 | 77.21 | 3.27 | 7.25 | 0.30 | 0.30 | 0.65 | 0.65 | (0.08) | 0.10 |
| 6 | British American Tobacco Ker | 1 | 1.48 | 16.53 | 8.25 | 136.34 | 4.58 | 0.16 | 0.28 | 0.32 | 2.26 | 2.62 | 0.19 | 0.06 |
| 7 | C.F.C Bank Ltd | 1 | 0.39 | 19.29 | 1.45 | 27.93 | 1.44 | 0.25 | 0.01 | 0.17 | 0.05 | 0.57 | (0.18) | 0.45 |
| 8 | Car & General (K) Ltd | 1 | 1.39 | 4.47 | 40.85 | 9.14 | 0.78 | 0.07 | 0.09 | 0.09 | 1.47 | 1.58 | 0.28 | (0.40) |
| 9 | Carbacid Investments Ltd | 1 | 7.41 | 14.52 | 3.45 | 50.08 | 1.45 | 0.20 | 0.10 | 0.12 | 0.24 | 0.28 | 0.25 | 0.02 |
| 10 | City Trust Ltd | 1 | 5.88 | 11.34 | 20.83 | 236.32 | 0.61 | - | 0.05 | 0.05 | 0.07 | 0.07 | 0.16 | 0.59 |
| 11 | CMC Holdings Ltd | 1 | 1.53 | 1.82 | 18.47 | 10.16 | 0.84 | 0.16 | 0.08 | 0.10 | 1.90 | 2.21 | 0.52 | 0.49 |
| 12 | Diamond Trust Bank Kenya Ltd | 1 | 0.54 | 16.97 | 2.50 | 42.42 | 1.94 | 6.48 | 0.11 | 0.11 | 0.50 | 0.50 | (0.13) | 0.18 |
| 13 | E.A Portland Cement Ltd | 1 | 2.24 | (15.88) | 3.68 | (58.51) | 0.67 | 2.55 | (0.04) | (0.15) | 0.65 | 2.31 | 0.21 | (2.19) |
| 14 | E.A.Cables Ltd | 1 | 2.66 | 8.35 | 6.86 | 57.31 | 3.06 | 0.07 | 0.37 | 0.39 | 2.44 | 2.60 | 0.76 | 12.20 |
| 15 | East Africal Breweries Ltd | 1 | 2.82 | 12.70 | 3.84 | 51.36 | 2.90 | 0.12 | 0.23 | 0.28 | 1.78 | 2.22 | 0.42 | 1.57 |
| 16 | I.C.D.C Investments Co.Ltd | 1 | 0.58 | 15.27 | 4.48 | 68.36 | 1.21 | 0.02 | 0.08 | 0.08 | 0.12 | 0.12 | (0.03) | 0.52 |
| 17 | Jubilee Insurance Co. Ltd | 1 | ** | 7.55 | 4.31 | 32.54 | 0.89 | - | 0.12 | 0.13 | 0.98 | 1.10 | 0.85 | 0.30 |
| 18 | Kakuzi | 1 | 0.64 | 9.36 | 2.50 | 23.41 | 0.44 | 0.63 | 0.05 | 0.08 | 0.80 | 1.31 | (0.07) | 8.10 |
| 19 | Kapchorua Tea Co. Ltd | 1 | 2.97 | 10.12 | 3.75 | 37.96 | 0.42 | 0.37 | 0.04 | 0.06 | 0.45 | 0.62 | 0.15 | (0.68) |
| 20 | Kenya Airways Ltd | 1 | 0.87 | 3.40 | 7.81 | 26.59 | 0.20 | 1.60 | 0.06 | 0.15 | 1.39 | 3.61 | (0.04) | 2.62 |
| 21 | Kenya Commercial Bank Ltd | 1 | 0.93 | 16.23 | 3.13 | 50.72 | 1.49 | 6.73 | 0.09 | 0.09 | 0.49 | 0.49 | (0.03) | 0.62 |
| 22 | Kenya Oil Co.Ltd | 1 | 1.51 | 6.07 | 3.96 | 24.04 | 1.38 | 0.09 | 0.23 | 0.25 | 9.36 | 10.16 | 0.35 | 0.79 |
| 23 | Limuru Tea Co. Ltd | 1 | 6.24 | 22.05 | 4.23 | 93.18 | 3.80 | 0.35 | 0.16 | 0.21 | 0.90 | 1.23 | 0.54 | 0.20 |
| 24 | Mumias Sugar Co. Ltd | 1 | 1.97 | 5.83 | 12.15 | 70.88 | 0.63 | 0.36 | 0.11 | 0.15 | 1.34 | 1.81 | 0.24 | 4.67 |
| 25 | Nation Media Group | 1 | 1.71 | 14.17 | 3.53 | 50.03 | 3.17 | 0.00 | 0.22 | 0.22 | 1.70 | 1.68 | 0.29 | 0.06 |
| 26 | NIC Bank Ltd | 1 | 0.72 | 15.77 | 4.80 | 75.68 | 1.56 | 5.10 | 0.10 | 0.10 | 0.40 | 0.40 | (0.05) | 0.08 |

| | 2004 | DIV | Current Ratio | P/E Ratio | Dividend Yield | DividendPayout Ratio | Price to Book Value | Debt to Equity Ratio | Return on Investment | Return on Equity | Turnover to Total Assets | Turnover to Equity Capital | Working Capital to Total Assets | Growth in Earnings After Tax |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 27 | Pan Africa Insurance Holdings | 1 | 1.31 | 10.75 | 4.76 | 51.17 | 1.26 | - | 0.12 | 0.12 | ** | ** | 1.00 | 5.00 |
| 28 | Rea Vipingo Plantations Ltd | 1 | 1.58 | 4.43 | 8.42 | 0.37 | 0.73 | 0.35 | 0.17 | 0.22 | 1.12 | 1.52 | 0.19 | 38.90 |
| 29 | Sameer Africa Ltd | 1 | 2.30 | 12.64 | 8.00 | 101.15 | 1.64 | 0.06 | 0.13 | 0.14 | 1.54 | 1.63 | 0.52 | 0.75 |
| 30 | Sasini Tea & Coffee Ltd | 1 | 2.57 | 1.01 | 12.20 | 12.32 | 0.21 | 0.19 | 0.20 | 0.25 | 0.27 | 0.33 | 0.09 | 12.47 |
| 31 | Standard Chartered Bank Ltd | 1 | 1.08 | 18.10 | 5.33 | 96.46 | 5.47 | 9.56 | 0.30 | 0.30 | 0.66 | 0.66 | (0.21) | (0.34) |
| 32 | Total Kenya Ltd | 1 | 1.36 | 28.34 | 2.68 | 74.96 | 3.61 | - | 0.13 | 0.13 | 8.32 | 8.32 | 0.48 | 0.12 |
| 33 | TPS Ltd (Serena) | 1 | 1.10 | 14.00 | 2.33 | 32.60 | 1.29 | 0.30 | 0.09 | 0.12 | 1.18 | 1.53 | 0.05 | 4.21 |
| 34 | Unilever Tea Kenya Ltd | 1 | 1.83 | 12.25 | 8.84 | 108.33 | 1.04 | 0.36 | 0.08 | 0.12 | 1.10 | 1.49 | 0.18 | 4.80 |
| 35 | Williamson Tea Kenya Ltd | 1 | 3.11 | 8.71 | 4.69 | 40.83 | 0.23 | 0.31 | 0.02 | 0.04 | 0.26 | 0.38 | 0.12 | 0.23 |
| 36 | A.Baumann & Co. Ltd | 0 | 1.35 | (3.00) | - | - | 0.11 | 0.13 | (0.04) | (0.04) | 0.36 | 0.41 | 0.10 | (3.38) |
| 37 | Crown Berger Ltd | 0 | 1.72 | 13.05 | - | - | 1.00 | 0.09 | 0.08 | 0.08 | 1.84 | 2.00 | 0.47 | (0.14) |
| 38 | Eaagads Ltd | 0 | 12.75 | (95.30) | - | - | 0.73 | 0.21 | (0.01) | (0.01) | 0.19 | 0.23 | 0.14 | 0.66 |
| 39 | Express Ltd | 0 | 0.57 | 54.46 | - | - | 1.15 | 0.10 | 0.02 | 0.02 | 8.08 | 8.85 | (0.78) | 1.07 |
| 40 | Housing Finance Company Lt | 0 | 1.93 | 16.30 | - | - | 0.87 | 160.62 | 0.05 | 1.18 | 0.99 | 21.75 | 0.16 | 0.16 |
| 41 | Kenya Orchards Ltd | 0 | 1.14 | (3.06) | - | - | 1.61 | 16.93 | (0.20) | (3.64) | 1.00 | 17.98 | 0.07 | (0.39) |
| 42 | Kenya Power & Lighting Ltd | 0 | 1.13 | 15.30 | - | - | 0.29 | 0.36 | 0.02 | 0.03 | 0.85 | 1.16 | 0.05 | (1.15) |
| 43 | Marshalls (E.A.) Ltd | 0 | 0.82 | 11.32 | - | - | 1.12 | 0.00 | 0.10 | 0.10 | 5.66 | 5.67 | (0.59) | 1.81 |
| 44 | National Bank of Kenya Ltd | 0 | 1.04 | 9.88 | - | - | 1.44 | 0.14 | 0.15 | 0.15 | 1.23 | 1.23 | 0.03 | (0.05) |
| 45 | Olympia Capital Holdings Ltd | 0 | 2.23 | 6.92 | - | - | 0.72 | 0.16 | 0.07 | 0.17 | 0.94 | 2.13 | 0.36 | 1.48 |
| 46 | Standard Group Ltd | 0 | 0.98 | 36.42 | - | - | 6.70 | 0.75 | 0.18 | 0.44 | 4.17 | 9.94 | (0.03) | 2.88 |
| 47 | Uchumi Supermarket Ltd | 0 | 0.52 | (1.50) | - | - | 2.00 | 3.79 | (1.33) | (6.36) | 15.13 | 72.41 | (2.52) | (4.56) |
| 48 | Unga Group Ltd | 0 | 1.00 | (8.97) | - | - | 0.43 | 0.10 | (0.05) | (0.08) | 2.95 | 4.73 | 0.00 | (2.77) |

**(SOURCE: NSE HANDBOOK 2004/5)**

* *Suspended from the Stock market*

** *Missing Data*

1 = Paid Dividends

0 = Did not Pay Dividends

| | 2003 | | Current Ratio | P/E Ratio | Dividend Yield | Payout Ratio | Price to Book Value | Debt to Equity Ratio | Return on Investment | Return on Equity | Turnover to Net Assets | Turnover to Equity Capital | Working Capital to Total Assets | Growth in Earnings After Tax |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Firm | Y | CR | PE | DivYd | DivPay | PriceBk | DebtEq | ROI | ROE | TurnTA | TurnEq | WcTA | IncEAT |
| 1 | Hutchings Biemer Ltd* | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** |
| 2 | Athi River Mining | 1 | 1.65 | 20.35 | 2.35 | 47.89 | 1.55 | 0.34 | 0.08 | 0.11 | 0.97 | 1.36 | 0.15 | 0.692037 |
| 3 | B.O.C Kenya Ltd | 1 | 3.43 | 12.73 | 4.37 | 55.65 | 1.73 | 0.05 | 0.14 | 0.14 | 0.65 | 0.68 | 0.47 | 0.446749 |
| 4 | Bamburi Cement Ltd | 1 | 2.51 | 42.86 | 2.22 | 95.25 | 3.29 | 0.21 | 0.08 | 0.10 | 0.75 | 0.95 | 0.16 | -0.061075 |
| 5 | Barclays Bank Ltd | 1 | 1.13 | 16.94 | 5.00 | 84.71 | 5.18 | - | 0.31 | 0.31 | 0.73 | 0.73 | (6.38) | 0.88839 |
| 6 | British American Tobacco Kenya Ltd | 1 | 1.81 | 24.21 | 4.53 | 109.65 | 5.74 | 0.14 | 0.24 | 0.27 | 1.97 | 2.25 | 0.26 | 0.385 |
| 7 | C.F.C Bank Ltd | 1 | 0.08 | 13.23 | 2.55 | 33.67 | 1.26 | 0.97 | 0.10 | 0.14 | 0.35 | 0.50 | (2.90) | 0.723523 |
| 8 | Car & General (K) Ltd | 1 | 1.39 | 24.97 | 0.99 | 24.60 | 4.01 | 0.07 | 0.16 | 0.17 | 1.30 | 1.38 | 0.19 | 7.143739 |
| 9 | Carbacid Investments Ltd | 1 | 4.39 | 13.44 | 22.00 | 295.70 | 2.16 | 0.13 | 0.16 | 0.18 | 0.40 | 0.45 | 0.29 | 0.58528 |
| 10 | City Trust Ltd | 1 | 5.52 | 12.66 | 10.71 | 135.69 | 0.43 | - | 0.03 | 0.03 | 0.04 | 0.04 | 0.15 | 0.290974 |
| 11 | CMC Holdings Ltd | 1 | 1.57 | 9.33 | 1.47 | 13.72 | 0.62 | 0.16 | 0.07 | 0.08 | 1.68 | 1.95 | 0.54 | 0.15845 |
| 12 | Crown Berger Ltd | 1 | 2.01 | 12.94 | 4.23 | 54.69 | 1.17 | 0.10 | 0.09 | 0.10 | 1.77 | 1.95 | 0.43 | 0.067169 |
| 13 | Diamond Trust Bank Kenya Ltd | 1 | 0.08 | 19.98 | 2.50 | 49.96 | 2.06 | 0.32 | 0.10 | 0.10 | 0.42 | 0.42 | (4.46) | 0.843641 |
| 14 | E.A Portland Cement Ltd | 1 | 2.42 | 18.41 | 3.78 | 69.65 | 0.64 | 2.03 | 0.03 | 0.11 | 0.59 | 1.79 | 0.20 | 0.835889 |
| 15 | E.A.Cables Ltd | 1 | 3.24 | 29.52 | 7.33 | 216.23 | 1.02 | 0.09 | 0.03 | 0.04 | 1.58 | 1.72 | 0.69 | 2.575008 |
| 16 | East Africal Breweries Ltd | 1 | 2.45 | 16.43 | 5.31 | 109.03 | 1.78 | 0.11 | 0.11 | 0.14 | 2.09 | 2.61 | 0.36 | -0.353421 |
| 17 | I.C.D.C Investments Co.Ltd | 1 | 0.33 | 17.62 | 4.31 | 76.02 | 1.02 | 0.02 | 0.06 | 0.06 | 0.08 | 0.08 | 0.02 | -0.354423 |
| 18 | Jubilee Insurance Co. Ltd | 1 | 0.34 | 8.46 | 4.50 | 38.07 | 0.32 | 0.04 | 0.04 | 0.10 | 0.05 | 0.14 | (0.10) | 0.293836 |
| 19 | Kapchorua Tea Co. Ltd | 1 | 3.08 | 15.40 | 2.74 | 42.14 | 0.60 | 0.39 | 0.04 | 0.05 | 0.46 | 0.64 | 0.13 | 3.517064 |
| 20 | Kenya Airways Ltd | 1 | 1.06 | 6.64 | 8.70 | 57.70 | 0.15 | 1.33 | 0.02 | 0.05 | 1.60 | 3.74 | 0.02 | -0.539701 |
| 21 | Kenya Commercial Bank Ltd | 1 | 7.02 | 16.64 | 1.85 | 30.81 | 1.44 | 0.13 | 0.09 | 0.09 | 0.84 | 0.84 | 0.76 | 1.161806 |
| 22 | Kenya Oil Co.Ltd | 1 | 1.30 | 5.85 | 2.02 | 22.58 | 1.04 | 0.10 | 0.18 | 0.20 | 6.33 | 6.94 | 0.22 | 0.061806 |
| 23 | Kenya Orchards Ltd | 1 | 0.98 | (5.94) | - | - | 1.08 | 2.62 | (0.16) | (0.56) | 1.02 | 3.68 | (0.01) | -24.30426 |
| 24 | Limuru Tea Co. Ltd | 1 | 5.08 | 11.93 | 6.25 | 74.56 | 3.91 | 0.33 | 0.13 | 0.18 | 0.95 | 1.27 | 0.55 | 2.874338 |
| 25 | Nation Media Group | 1 | 1.99 | 16.35 | 2.62 | 44.36 | 3.67 | 0.01 | 0.22 | 0.22 | 1.61 | 1.62 | 0.40 | 0.492818 |
| 26 | NIC Bank Ltd | 1 | 0.09 | 15.46 | 4.95 | 76.44 | 1.46 | 0.01 | 0.09 | 0.09 | 0.38 | 0.38 | (2.82) | 0.05873 |
| 27 | Rea Vipingo Plantations Ltd | 1 | 1.46 | 95.81 | 7.77 | 7.44 | 0.47 | 0.42 | 0.00 | 0.01 | 1.10 | 1.55 | 0.15 | -0.870007 |

| | 2003 | | Current Ratio | P/E Ratio | Dividend Yield | Payout Ratio | Price to Book Value | Debt to Equity Ratio | Return on Investment | Return on Equity | Turnover to Net Assets | Turnover to Equity Capital | Working Capital to Total Assets | Growth in Earnings After Tax |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 28 | Sameer Africa Ltd | 1 | 3.22 | 21.07 | 4.20 | 88.53 | 1.64 | 0.06 | 0.08 | 0.08 | 1.25 | 1.33 | 0.50 | -0.320703 |
| 29 | Standard Chartered Bank Ltd | 1 | 1.08 | 16.93 | 4.45 | 75.36 | 7.33 | 0.27 | 0.43 | 0.43 | 0.69 | 0.69 | (7.67) | 0.264078 |
| 30 | Total Kenya Ltd | 1 | 1.50 | 12.82 | 6.63 | 80.60 | 1.60 | - | 0.12 | 0.12 | 5.43 | 5.43 | 0.45 | 0.429655 |
| 31 | TPS Ltd (Serena) | 1 | 1.11 | 42.03 | 4.04 | 169.47 | 0.76 | 0.38 | 0.02 | 0.02 | 0.88 | 1.21 | 0.05 | -0.763177 |
| 32 | Unilever Tea Kenya Ltd | 1 | 2.56 | 51.82 | 9.09 | 471.05 | 0.77 | 0.35 | 0.01 | 0.02 | 0.95 | 1.28 | 0.23 | -0.498069 |
| 33 | Williamson Tea Kenya Ltd | 1 | 2.58 | 9.52 | 5.36 | 51.02 | 0.20 | 0.31 | 0.02 | 0.03 | 0.28 | 0.38 | 0.10 | 1.423743 |
| 34 | A.Baumann & Co. Ltd | 0 | 2.06 | (8.78) | - | - | 0.07 | 0.14 | (0.01) | (0.01) | 0.35 | 0.41 | 0.25 | -1.050029 |
| 35 | Eaagads Ltd | 0 | 12.36 | (30.01) | - | - | 0.88 | 0.18 | (0.03) | (0.03) | 0.34 | 0.40 | 0.25 | -2.106708 |
| 36 | Express Ltd | 0 | 0.69 | (0.63) | - | - | 0.31 | 11.15 | (0.49) | (5.94) | 28.46 | 345.71 | (1.51) | -0.21683 |
| 37 | Housing Finance Company Ltd | 0 | 0.02 | 26.73 | - | - | 1.31 | 0.18 | 0.05 | 0.05 | 1.92 | 1.92 | (8.68) | -0.071691 |
| 38 | Kakuzi | 0 | 0.53 | (24.34) | - | - | 0.17 | 0.67 | (0.01) | (0.01) | 0.86 | 1.42 | (0.13) | -2.553404 |
| 39 | Kenya Power & Lighting Ltd | 0 | 0.84 | (0.83) | - | - | 0.13 | 18.38 | (0.16) | (3.06) | 0.99 | 19.23 | (0.10) | -0.623447 |
| 40 | Marshalls (E.A.) Ltd | 0 | 0.80 | 3.95 | - | - | 0.43 | 0.00 | 0.11 | 0.11 | 8.14 | 8.16 | (0.75) | -0.246351 |
| 41 | Mumias Sugar Co. Ltd | 0 | 1.37 | (8.04) | - | - | 0.26 | 0.37 | (0.03) | (0.04) | 1.14 | 1.57 | 0.13 | -4.311137 |
| 42 | National Bank of Kenya Ltd | 0 | 0.04 | 6.61 | - | - | 1.24 | 0.74 | 0.19 | 0.19 | 1.52 | 1.52 | (9.22) | 1.032114 |
| 43 | Olympia Capital Holdings Ltd | 0 | 1.81 | 18.79 | - | - | 1.04 | 0.33 | 0.06 | 0.10 | 1.64 | 2.86 | 0.47 | 0.827955 |
| 44 | Pan Africa Insurance Holdings Ltd | 0 | 0.38 | (48.12) | - | - | 1.87 | - | (0.04) | (0.04) | 0.14 | 0.14 | (2.04) | -0.501313 |
| 45 | Sasini Tea & Coffee Ltd | 0 | 2.66 | (9.78) | - | - | 0.24 | 0.13 | (0.02) | (0.03) | 0.31 | 0.36 | 0.10 | -5.004766 |
| 46 | Standard Group Ltd | 0 | 0.93 | (52.34) | - | - | 9.30 | 0.82 | (0.18) | (0.50) | 5.43 | 15.16 | (0.11) | -5.108223 |
| 47 | Uchumi Supermarket Ltd | 0 | 0.58 | (9.69) | - | - | 2.71 | - | 0.28 | 0.28 | 12.68 | 12.68 | (1.65) | 2.957978 |
| 48 | Unga Group Ltd | 0 | 1.01 | (28.11) | - | - | 0.33 | 0.13 | (0.01) | (0.02) | 2.46 | 3.97 | 0.01 | 0.523947 |

**(SOURCE: NSE HANDBOOK 2004/5)**

** Suspended from the Stock market*

*** Missing Data*

1 = Paid Dividends

0 = Did not Pay Dividends

| | 2002 | | Current Ratio | P/E Ratio | Dividend Yield | Payout Ratio | Price to Book Value | Debt to Equity Ratio | Return on Investment | Return on Equity | Turnover to Net Assets | Turnover to Equity Capital | Working Capital to Total Assets | Growth in Earnings After Tax |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Firm | Y | CR | PE | DivYd | DivPay | PriceBk | DebtEq | ROI | ROE | TurnTA | TurnEq | WcTA | IncEAT |
| 1 | Hutchings Biemer Ltd* | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** |
| 2 | Athi River Mining | 1 | 1.31 | 7.62 | 8.51 | 64.82 | 0.42 | 0.20 | 0.06 | 0.07 | 1.08 | 1.31 | 0.11 | 0.697678 |
| 3 | B.O.C Kenya Ltd | 1 | 3.18 | 4.95 | 16.26 | 80.51 | 0.50 | 0.04 | 0.10 | 0.10 | 0.66 | 0.69 | 0.47 | 0.40561 |
| 4 | Bamburi Cement Ltd | 1 | 1.54 | 12.93 | 8.00 | 103.45 | 1.24 | 0.25 | 0.10 | 0.12 | 0.79 | 1.03 | 0.10 | 0.679891 |
| 5 | Barclays Bank Ltd | 1 | 0.11 | 10.49 | 8.91 | 93.48 | 1.87 | 0.25 | 0.18 | 0.18 | 0.78 | 0.78 | (6.14) | -0.39662 |
| 6 | British American Tobacco Kenya Ltd | 1 | 1.83 | 6.56 | 16.67 | 109.34 | 1.14 | 0.15 | 0.17 | 0.20 | 1.99 | 2.29 | 0.28 | 0.362536 |
| 7 | C.F.C Bank Ltd | 1 | 0.08 | 6.36 | 7.28 | 46.29 | 0.46 | 0.50 | 0.07 | 0.09 | 0.85 | 1.00 | (2.91) | 0.228422 |
| 8 | Carbacid Investments Ltd | 1 | 18.55 | 7.25 | 6.43 | 46.67 | 0.54 | 0.11 | 0.07 | 0.08 | 0.23 | 0.26 | 0.49 | 0.240493 |
| 9 | CMC Holdings Ltd | 1 | 1.64 | 2.47 | 5.80 | 15.89 | 0.17 | 0.12 | 0.06 | 0.07 | 1.85 | 2.07 | 0.52 | 0.758882 |
| 10 | Crown Berger Ltd | 1 | 2.42 | 2.72 | 21.43 | 58.38 | 0.24 | 0.12 | 0.09 | 0.10 | 1.75 | 1.96 | 0.57 | 1.846099 |
| 11 | Diamond Trust Bank Kenya Ltd | 1 | 0.07 | 10.53 | 6.00 | 63.16 | 0.63 | 0.19 | 0.06 | 0.06 | 0.43 | 0.43 | (3.34) | 0.845133 |
| 12 | E.A Portland Cement Ltd | 1 | 2.44 | 9.13 | 12.00 | 109.60 | 0.17 | 2.49 | 0.02 | 0.06 | 0.48 | 1.69 | 0.17 | -0.83275 |
| 13 | E.A.Cables Ltd | 1 | 3.82 | (31.33) | 5.43 | (170.28) | 0.70 | 0.09 | (0.02) | (0.02) | 1.45 | 1.58 | 0.66 | -1.37312 |
| 14 | Eaagads Ltd | 1 | 8.72 | 39.56 | 2.63 | 104.11 | 0.79 | 0.23 | 0.02 | 0.02 | 0.42 | 0.52 | 0.33 | 3.077086 |
| 15 | East Africal Breweries Ltd | 1 | 1.71 | 3.88 | 10.91 | 54.05 | 0.73 | 0.11 | 0.19 | 0.21 | 2.25 | 2.49 | 0.32 | 0.474454 |
| 16 | Housing Finance Company Ltd | 1 | 0.03 | 10.71 | - | - | 0.58 | 4.46 | 0.05 | 0.83 | 2.61 | 39.73 | (8.54) | 1.2994 |
| 17 | I.C.D.C Investments Co.Ltd | 1 | 3.08 | 4.24 | 10.52 | 44.62 | 0.54 | 0.02 | 0.10 | 0.11 | 0.06 | 0.07 | 0.06 | 0.597328 |
| 18 | Jubilee Insurance Co. Ltd | 1 | 0.12 | 3.39 | 11.29 | 38.31 | 0.13 | 0.06 | 0.04 | 0.11 | 0.03 | 0.09 | (0.16) | 0.357297 |
| 19 | Kapchorua Tea Co. Ltd | 1 | 2.54 | (38.75) | 0.36 | (14.14) | 1.01 | 0.37 | (0.03) | (0.04) | 0.72 | 0.99 | 0.18 | -3.20997 |
| 20 | Kenya Airways Ltd | 1 | 1.23 | 4.17 | 7.64 | 31.87 | 0.23 | 1.00 | 0.06 | 0.11 | 1.64 | 3.28 | 0.51 | -0.35962 |
| 21 | Kenya Oil Co.Ltd | 1 | 1.22 | 1.85 | 11.73 | 2,169.00 | 0.33 | 0.13 | 0.18 | 0.21 | 5.46 | 6.34 | 0.17 | 0.177001 |
| 22 | Kenya Orchards Ltd | 1 | 1.20 | 71.26 | - | - | 1.38 | 4.44 | 0.01 | 0.06 | 1.40 | 7.61 | 0.18 | -0.93177 |
| 23 | Limuru Tea Co. Ltd | 1 | 4.85 | 113.82 | 0.80 | 86.66 | 5.93 | 0.32 | 0.05 | 0.07 | 1.19 | 1.58 | 0.64 | 1.696279 |
| 24 | Mumias Sugar Co. Ltd | 1 | 1.30 | 19.58 | 4.00 | 78.32 | 0.18 | 0.38 | 0.01 | 0.01 | 1.12 | 1.55 | 0.11 | -0.86513 |
| 25 | Nation Media Group | 1 | 1.72 | 11.12 | 2.98 | 33.11 | 1.88 | 0.03 | 0.17 | 0.17 | 1.72 | 1.76 | 0.37 | 0.573042 |
| 26 | NIC Bank Ltd | 1 | 0.11 | 7.09 | 10.15 | 71.94 | 0.65 | 0.01 | 0.09 | 0.09 | 0.39 | 0.39 | (2.30) | -0.10884 |
| 27 | Rea Vipingo Plantations Ltd | 1 | 1.57 | 6.17 | 9.80 | 0.60 | 0.23 | 0.45 | 0.04 | 0.05 | 1.02 | 1.48 | 0.15 | 5.208458 |

| | 2002 | | Current Ratio | P/E Ratio | Dividend Yield | Payout Ratio | Price to Book Value | Debt to Equity Ratio | Return on Investment | Return on Equity | Turnover to Net Assets | Turnover to Equity Capital | Working Capital to Total Assets | Growth in Earnings After Tax |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 28 | Sameer Africa Ltd | 1 | 3.69 | 10.46 | 11.49 | 120.28 | 1.13 | 0.08 | 0.11 | 0.12 | 1.27 | 1.38 | 0.50 | -0.30633 |
| 29 | Sasini Tea & Coffee Ltd | 1 | 1.87 | (72.29) | 3.79 | (273.84) | 0.26 | 0.07 | 0.01 | 0.01 | 0.43 | 0.48 | 0.11 | 0.090708 |
| 30 | Standard Chartered Bank Ltd | 1 | 1.07 | 6.95 | 13.31 | 92.46 | 2.69 | 0.44 | 0.39 | 0.39 | 0.94 | 0.94 | (8.02) | -0.01648 |
| 31 | Total Kenya Ltd | 1 | 1.39 | 9.85 | 8.39 | 73.59 | 1.04 | - | 0.11 | 0.11 | 4.76 | 4.76 | 0.31 | 2.621789 |
| 32 | TPS Ltd (Serena) | 1 | 1.08 | 6.94 | 5.79 | 40.18 | 0.52 | 0.38 | 0.08 | 0.10 | 1.03 | 1.42 | 0.04 | 0.094958 |
| 33 | Uchumi Supermarket Ltd | 1 | 0.72 | 20.05 | 3.01 | 60.41 | 1.07 | 0.01 | 0.05 | 0.05 | 8.51 | 8.56 | (0.48) | -0.44322 |
| 34 | Unilever Tea Kenya Ltd | 1 | 2.25 | 21.18 | 4.63 | 98.52 | 0.60 | 0.33 | 0.03 | 0.04 | 0.96 | 1.29 | 0.18 | -0.4445 |
| 35 | A.Baumann & Co. Ltd | 0 | 2.40 | (0.72) | - | - | 0.09 | - | 0.12 | 0.12 | 0.29 | 0.29 | 0.22 | 17.62587 |
| 36 | Car & General (K) Ltd | 0 | 0.95 | - | - | 29.90 | 0.65 | 0.08 | 0.02 | 0.02 | 1.27 | 1.37 | (0.03) | 2.269336 |
| 37 | City Trust Ltd | 0 | 6.07 | 13.62 | 11.43 | 155.71 | 0.36 | - | 0.03 | 0.03 | 0.04 | 0.04 | 0.15 | -0.42345 |
| 38 | Express Ltd | 0 | 0.71 | (0.58) | - | - | 0.23 | 0.81 | (0.39) | (0.70) | 27.52 | 49.88 | (1.42) | -0.78241 |
| 39 | Kakuzi | 0 | 0.65 | 37.82 | - | - | 0.17 | 0.68 | 0.00 | 0.01 | 0.62 | 1.05 | (0.12) | 1.167901 |
| 40 | Kenya Commercial Bank Ltd | 0 | 1.64 | (0.85) | - | - | 0.48 | 0.58 | (0.57) | (0.57) | 0.83 | 0.83 | 0.42 | -16.3372 |
| 41 | Kenya Power & Lighting Ltd | 0 | 1.13 | (0.36) | - | - | 0.03 | 5.04 | (0.09) | (0.53) | 1.29 | 7.78 | 0.06 | 0.346631 |
| 42 | Marshalls (E.A.) Ltd | 0 | 0.79 | 9.00 | - | - | 0.75 | - | 0.08 | 0.08 | 4.04 | 4.04 | (0.52) | 1.094764 |
| 43 | National Bank of Kenya Ltd | 0 | 0.04 | 3.67 | - | - | 0.38 | 0.25 | 0.10 | 0.03 | 1.10 | 0.36 | (9.47) | -0.33496 |
| 44 | Olympia Capital Holdings Ltd | 0 | 1.75 | 9.90 | - | - | 0.36 | 0.06 | 0.26 | 0.06 | 13.37 | 3.32 | 3.36 | -0.68623 |
| 45 | Pan Africa Insurance Holdings Ltd | 0 | 0.89 | (21.52) | - | - | 0.20 | - | (0.01) | (0.03) | 0.05 | 0.16 | (0.07) | -1.09525 |
| 46 | Standard Group Ltd | 0 | 0.83 | (10.00) | - | - | 0.50 | 0.60 | 0.05 | 0.08 | 5.54 | 8.87 | (0.35) | -0.80841 |
| 47 | Unga Group Ltd | 0 | 1.04 | (3.82) | - | - | 0.11 | 0.07 | (0.03) | (0.05) | 2.76 | 4.89 | 0.02 | 0.512619 |
| 48 | Williamson Tea Kenya Ltd | 0 | 2.42 | (16.59) | 0.98 | 16.26 | 0.21 | 0.31 | 0.01 | 0.02 | 0.48 | 0.64 | 0.13 | -0.65589 |

**(SOURCE: NSE HANDBOOK 2004/5)**

** Suspended from the Stock market*

*** Missing Data*

1 = Paid Dividends

0 = Did not Pay Dividends

| | 2001 | | Current Ratio | P/E Ratio | Dividend Yield | Payout Ratio | Price to Book Value | Debt to Equity Ratio | Return on Investment | Return on Equity | Turnover to Net Assets | Turnover to Equity Capital | Working Capital to Total Assets | Growth in Earnings After Tax |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Firm | Y | CR | PE | DivYd | DivPay | PriceBk | DebtEq | ROI | ROE | TurnTA | TurnEq | WcTA | IncEAT |
| 1 | Hutchings Biemer Ltd* | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** |
| 2 | A.Baumann & Co. Ltd | 1 | 2.69 | (10.34) | 14.39 | (148.72) | 0.06 | - | 0.01 | 0.01 | 0.25 | 0.25 | 0.18 | (0.67) |
| 3 | Athi River Mining | 1 | 1.38 | 10.12 | 5.00 | 50.58 | 0.35 | - | 0.03 | 0.04 | 0.90 | 1.06 | 0.11 | 0.12 |
| 4 | B.O.C Kenya Ltd | 1 | 2.70 | 7.80 | 11.83 | 92.36 | 0.57 | 0.04 | 0.07 | 0.08 | 0.64 | 0.66 | 0.44 | 0.00 |
| 5 | Bamburi Cement Ltd | 1 | 1.72 | 8.29 | 6.71 | 55.61 | 0.43 | 0.29 | 0.05 | 0.07 | 0.66 | 0.88 | 0.09 | 0.60 |
| 6 | Barclays Bank Ltd | 1 | 0.12 | 4.54 | 19.31 | 87.73 | 1.18 | 0.07 | 0.04 | 0.26 | 0.12 | 0.77 | (0.68) | 0.30 |
| 7 | British American Tobacco Kenya Ltd | 1 | 1.64 | 8.11 | 16.12 | 130.77 | 1.05 | 0.14 | 0.13 | 0.15 | 2.22 | 2.52 | 0.27 | 0.04 |
| 8 | C.F.C Bank Ltd | 1 | 0.08 | 7.64 | 7.44 | 56.96 | 0.48 | 0.99 | 0.01 | 0.07 | 0.20 | 1.10 | (0.48) | (0.37) |
| 9 | Carbacid Investments Ltd | 1 | 16.40 | 8.81 | 7.86 | 69.23 | 0.55 | 0.11 | 0.06 | 0.07 | 0.22 | 0.24 | 0.51 | (1.05) |
| 10 | City Trust Ltd | 1 | 7.28 | 7.27 | 12.35 | 89.78 | 0.33 | - | 0.04 | 0.04 | 0.06 | 0.06 | 0.17 | (0.20) |
| 11 | CMC Holdings Ltd | 1 | 1.58 | 2.52 | 8.33 | 20.96 | 0.09 | 0.16 | 0.04 | 0.04 | 1.78 | 2.06 | 0.42 | (0.41) |
| 12 | Crown Berger Ltd | 1 | 1.97 | 4.65 | 10.00 | 46.47 | 0.18 | 0.13 | 0.04 | 0.04 | 1.71 | 1.94 | 0.48 | 0.05 |
| 13 | Diamond Trust Bank Kenya Ltd | 1 | 0.17 | 17.48 | 4.44 | 77.69 | 0.58 | 0.19 | 0.03 | 0.03 | 0.45 | 0.45 | (2.61) | (3.00) |
| 14 | E.A Portland Cement Ltd | 1 | 2.20 | 1.34 | 9.09 | 12.22 | 0.15 | 2.46 | 0.11 | 0.38 | 0.47 | 1.64 | 0.15 | 1.57 |
| 15 | E.A.Cables Ltd | 1 | 7.71 | 11.69 | 11.96 | 139.78 | 0.63 | 0.08 | 0.05 | 0.06 | 1.21 | 1.31 | 0.71 | (0.91) |
| 16 | Eaagads Ltd | 1 | 10.99 | 174.03 | 2.44 | 424.46 | 0.85 | 0.23 | 0.00 | 0.01 | 0.33 | 0.41 | 0.31 | 10.01 |
| 17 | East Africal Breweries Ltd | 1 | 1.84 | 5.34 | 8.76 | 60.48 | 0.74 | 0.12 | 0.14 | 0.16 | 2.36 | 2.67 | 0.28 | 0.22 |
| 18 | Housing Finance Company Ltd | 1 | 0.08 | (3.70) | - | - | 0.70 | 0.13 | (0.02) | (2.22) | 0.13 | 18.48 | (0.79) | (1.28) |
| 19 | I.C.D.C Investments Co.Ltd | 1 | 0.51 | 14.02 | 4.26 | 59.65 | 0.97 | 0.03 | 0.07 | 0.07 | 0.06 | 0.06 | (0.04) | (0.47) |
| 20 | Jubilee Insurance Co. Ltd | 1 | 0.08 | 4.61 | 11.29 | 52.00 | 0.15 | 0.08 | 0.03 | 0.09 | 0.03 | 0.10 | (0.19) | 0.36 |
| 21 | Kapchorua Tea Co. Ltd | 1 | 2.59 | 87.52 | 1.79 | 156.28 | 0.97 | 0.33 | 0.01 | 0.01 | 0.61 | 0.81 | 0.21 | (1.38) |
| 22 | Kenya Airways Ltd | 1 | 1.60 | 2.57 | 16.56 | 42.52 | 0.21 | 1.09 | 0.08 | 0.17 | 1.36 | 2.84 | 0.24 | (1.05) |
| 23 | Kenya Commercial Bank Ltd | 1 | 1.13 | 12.50 | - | - | 0.30 | 0.00 | 0.02 | 0.02 | 0.54 | 0.54 | 0.10 | 3.37 |
| 24 | Kenya Oil Co.Ltd | 1 | 1.30 | 1.84 | 10.95 | 20.16 | 0.35 | 0.12 | 0.19 | 0.22 | 5.52 | 6.42 | 0.24 | 0.59 |
| 25 | Limuru Tea Co. Ltd | 1 | 3.19 | (79.25) | - | - | 6.59 | 0.27 | (0.08) | (0.11) | 1.27 | 1.61 | 0.58 | (4.96) |
| 26 | Mumias Sugar Co. Ltd | 1 | 1.35 | 6.71 | 11.18 | 75.00 | 0.43 | 0.40 | 0.06 | 0.09 | 0.89 | 1.24 | 0.13 | (0.02) |
| 27 | Nation Media Group | 1 | 1.74 | 9.01 | 3.70 | 33.33 | 1.08 | 0.06 | 0.12 | 0.13 | 1.65 | 1.75 | 0.24 | 0.21 |

| | 2001 | | Current Ratio | P/E Ratio | Dividend Yield | Payout Ratio | Price to Book Value | Debt to Equity Ratio | Return on Investment | Return on Equity | Turnover to Net Assets | Turnover to Equity Capital | Working Capital to Total Assets | Growth in Earnings After Tax |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 28 | NIC Bank Ltd | 1 | 0.15 | 4.81 | 10.67 | 51.28 | 0.51 | 0.01 | 0.11 | 0.11 | 0.41 | 0.41 | (1.97) | (0.22) |
| 29 | Sameer Africa Ltd | 1 | 2.83 | 5.84 | 14.29 | 83.44 | 0.89 | 0.07 | 0.15 | 0.16 | 1.40 | 1.50 | 0.52 | 0.12 |
| 30 | Sasini Tea & Coffee Ltd | 1 | 2.39 | 48.90 | 5.05 | 246.97 | 0.39 | 0.04 | 0.01 | 0.01 | 0.45 | 0.47 | 0.11 | (6.20) |
| 31 | Standard Chartered Bank Ltd | 1 | 1.08 | 5.18 | 17.55 | 90.94 | 2.07 | 0.32 | 0.40 | 0.40 | 0.95 | 0.95 | (7.14) | 0.03 |
| 32 | Standard Group Ltd | 1 | 0.56 | 1.12 | - | - | 1.10 | (1.44) | 0.98 | (0.43) | 17.89 | (7.93) | (3.87) | 1.00 |
| 33 | Total Kenya Ltd | 1 | 0.91 | (8.54) | - | - | 0.88 | - | (0.10) | (0.10) | 8.36 | 8.36 | (0.20) | (1.93) |
| 34 | TPS Ltd (Serena) | 1 | 1.05 | 6.80 | 6.47 | 44.00 | 0.47 | 0.48 | 0.07 | 0.10 | 1.06 | 1.57 | 0.02 | 0.14 |
| 35 | Uchumi Supermarket Ltd | 1 | 0.98 | 30.61 | 3.52 | 107.63 | 2.91 | - | 0.10 | 0.10 | 8.48 | 8.48 | (0.02) | (2.59) |
| 36 | Unilever Tea Kenya Ltd | 1 | 1.98 | 15.76 | 2.78 | 43.78 | 0.63 | 0.36 | 0.04 | 0.05 | 0.78 | 1.07 | 0.10 | (1.01) |
| 37 | Williamson Tea Kenya Ltd | 1 | 2.15 | 6.43 | 5.00 | 32.14 | 0.40 | 0.26 | 0.04 | 0.05 | 0.48 | 0.62 | 0.15 | - |
| 38 | Car & General (K) Ltd | 0 | 0.84 | (37.96) | - | - | 0.65 | 0.09 | (0.02) | (0.02) | 1.27 | 1.38 | (0.13) | (1.73) |
| 39 | Express Ltd | 0 | 0.69 | (2.85) | - | - | 0.48 | 0.37 | (0.17) | (0.23) | 19.43 | 26.57 | (1.07) | (0.81) |
| 40 | Kakuzi | 0 | 0.77 | 15.60 | - | - | 0.31 | 0.25 | (0.02) | (0.03) | 0.55 | 0.70 | (0.07) | (0.37) |
| 41 | Kenya Orchards Ltd | 0 | 1.06 | 4,861.55 | - | - | - | 5.80 | 0.19 | 1.27 | 1.57 | 10.68 | 0.07 | 2.02 |
| 42 | Kenya Power & Lighting Ltd | 0 | 0.68 | (0.80) | - | - | 0.36 | 4.86 | (0.42) | (2.65) | 4.11 | 25.96 | (1.04) | 0.11 |
| 43 | Marshalls (E.A.) Ltd | 0 | 0.76 | (0.85) | - | - | 0.67 | 0.13 | (0.78) | (0.88) | 3.76 | 4.23 | (0.53) | (0.66) |
| 44 | National Bank of Kenya Ltd | 0 | 0.04 | 1.94 | - | - | 0.34 | 0.17 | 0.17 | 0.05 | 1.22 | 0.36 | (8.78) | 8.38 |
| 45 | Olympia Capital Holdings Ltd | 0 | 1.73 | 3.11 | - | - | 0.62 | 0.05 | 0.20 | 0.21 | 0.84 | 0.88 | 0.54 | 0.89 |
| 46 | Pan Africa Insurance Holdings Ltd | 0 | 0.79 | 3.84 | - | - | 0.39 | - | 0.10 | 0.28 | 0.05 | 0.14 | (0.13) | 1.40 |
| 47 | Rea Vipingo Plantations Ltd | 0 | 1.21 | 43.54 | - | - | 0.28 | 0.40 | 0.01 | 0.01 | 0.98 | 1.37 | 0.08 | 9.51 |
| 48 | Unga Group Ltd | 0 | 0.93 | (3.52) | - | - | 0.19 | 0.08 | (0.05) | (0.10) | 3.31 | 5.95 | (0.06) | 2.94 |

**(SOURCE: NSE HANDBOOK 2004/5)**

* *Suspended from the Stock market*
** *Missing Data*
1 = Paid Dividends
0 = Did not Pay Dividends

| 2000 | | Current Ratio | P/E Ratio | Dividend Yield | Payout Ratio | Price to Book Value | Debt to Equity Ratio | Return on Investment | Return on Equity | Turnover to Net Assets | Turnover to Equity Capital | to Total Assets | Earnings After Tax |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Firm | Y | CR | PE | DivYd | DivPay | PriceBk | DebtEq | ROI | ROE | TurnTA | TurnEq | WcTA | IncEAT |
| 1 Hutchings Biemer Ltd* | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | |
| 2 Mumias Sugar Co. Ltd | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | |
| 3 A.Baumann & Co. Ltd | 1 | 2.15 | 12.76 | 6.99 | 89.26 | 0.12 | - | 0.01 | 0.01 | 0.26 | 0.26 | 0.19 | |
| 4 B.O.C Kenya Ltd | 1 | 3.43 | 11.24 | 8.26 | 92.77 | 0.82 | 0.05 | 0.07 | 0.08 | 0.55 | 0.57 | 0.49 | |
| 5 Bamburi Cement Ltd | 1 | 1.66 | 42.39 | 2.21 | 94.19 | 1.01 | 0.31 | 0.02 | 0.03 | 0.63 | 0.86 | 0.10 | |
| 6 Barclays Bank Ltd | 1 | 0.15 | 6.75 | 13.25 | 89.46 | 1.35 | 0.14 | 0.20 | 0.20 | 0.85 | 0.85 | (4.37) | |
| 7 British American Tobacco Kenya Ltd | 1 | 1.62 | 10.38 | 13.06 | 135.57 | 1.24 | 0.13 | 0.12 | 0.13 | 2.23 | 2.52 | 0.29 | |
| 8 Carbacid Investments Ltd | 1 | 6.53 | 5.02 | 5.61 | 28.15 | 0.70 | 0.08 | 0.14 | 0.15 | 0.33 | 0.36 | 0.47 | |
| 9 City Trust Ltd | 1 | 8.32 | 7.45 | - | 74.52 | 0.40 | - | 0.05 | 0.05 | 0.06 | 0.06 | 0.17 | |
| 10 CMC Holdings Ltd | 1 | 1.43 | 3.17 | 4.69 | 14.85 | 0.16 | 0.25 | 0.05 | 0.06 | 1.67 | 2.10 | 0.38 | |
| 11 Crown Berger Ltd | 1 | 1.70 | 9.97 | 5.56 | 55.36 | 0.33 | 0.13 | 0.03 | 0.03 | 1.72 | 1.94 | 0.40 | |
| 12 Diamond Trust Bank Kenya Ltd | 1 | 0.18 | 6.80 | 4.29 | 29.16 | 0.88 | 0.26 | 0.13 | 0.13 | 0.43 | 0.43 | (1.73) | |
| 13 E.A.Cables Ltd | 1 | 5.05 | 6.16 | 11.89 | 73.29 | 0.61 | 0.01 | 0.10 | 0.10 | 1.30 | 1.31 | 0.69 | |
| 14 East Africal Breweries Ltd | 1 | 1.38 | 5.07 | 8.56 | 58.09 | 0.61 | 0.10 | 0.12 | 0.14 | 2.47 | 2.91 | 0.14 | |
| 15 Housing Finance Company Ltd | 1 | 0.07 | 12.11 | 6.91 | 0.84 | 0.43 | 0.12 | 0.04 | 0.57 | 1.47 | 23.44 | (7.09) | |
| 16 I.C.D.C Investments Co.Ltd | 1 | 2.61 | 8.36 | 4.04 | 50.67 | 0.88 | 0.04 | 0.11 | 0.11 | 0.06 | 0.06 | 0.04 | |
| 17 Jubilee Insurance Co. Ltd | 1 | 0.08 | 8.53 | 9.46 | 80.66 | 0.17 | 0.07 | 0.02 | 0.04 | 0.03 | 0.07 | (0.18) | |
| 18 Kakuzi | 1 | 0.89 | (38.13) | 0.73 | (27.73) | 0.41 | 0.25 | (0.01) | (0.01) | 0.46 | 0.59 | (0.03) | |
| 19 Kapchorua Tea Co. Ltd | 1 | 2.57 | 39.47 | 1.67 | 65.78 | 1.07 | 0.31 | 0.03 | 0.04 | 0.63 | 0.83 | 0.17 | |
| 20 Kenya Airways Ltd | 1 | 1.60 | 1.24 | 16.67 | 20.73 | 0.23 | 1.10 | 0.18 | 0.38 | 1.14 | 2.41 | 0.30 | |
| 21 Kenya Oil Co.Ltd | 1 | 1.62 | 5.36 | 5.29 | 39.62 | 0.61 | 0.05 | 0.11 | 0.13 | 4.91 | 5.39 | 0.34 | |
| 22 Kenya Power & Lighting Ltd | 1 | 0.85 | (1.28) | 3.88 | (4.96) | 0.43 | 1.39 | (0.33) | (0.80) | 2.46 | 5.88 | (0.26) | |
| 23 Limuru Tea Co. Ltd | 1 | 3.84 | 10.99 | 8.50 | 93.03 | 3.18 | 0.05 | 0.29 | 0.30 | 1.38 | 1.45 | 0.57 | |
| 24 Nation Media Group | 1 | 1.69 | 12.11 | 2.54 | 30.72 | 1.10 | 0.17 | 0.09 | 0.11 | 1.35 | 1.60 | 0.21 | |
| 25 NIC Bank Ltd | 1 | 0.15 | 4.68 | 10.14 | 47.46 | 0.64 | 0.04 | 0.14 | 0.14 | 0.56 | 0.56 | (1.74) | |
| 26 Olympia Capital Holdings Ltd | 1 | 2.33 | 35.56 | 6.25 | 222.22 | 0.61 | 0.07 | 0.02 | 0.02 | 0.65 | 0.70 | 0.54 | |
| 27 Sameer Africa Ltd | 1 | 2.80 | 10.94 | 8.70 | 95.13 | 1.49 | 0.06 | 0.14 | 0.14 | 1.25 | 1.33 | 0.49 | |

| | 2000 | | Current Ratio | P/E Ratio | Dividend Yield | Payout Ratio | Price to Book Value | Debt to Equity Ratio | Return on Investment | Return on Equity | Turnover to Net Assets | Turnover to Equity Capital | Working Capital to Total Assets | Growth in Earnings After Tax |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 28 | Sasini Tea & Coffee Ltd | 1 | 2.33 | 11.92 | 5.76 | 68.63 | 0.56 | 0.04 | 0.05 | 0.05 | 0.43 | 0.46 | 0.11 | |
| 29 | Standard Chartered Bank Ltd | 1 | 1.11 | 5.63 | 22.22 | 125.03 | 1.91 | 0.23 | 0.34 | 0.35 | 0.77 | 0.80 | 1.00 | |
| 30 | TPS Ltd (Serena) | 1 | 0.91 | 7.36 | 6.96 | 51.23 | 0.47 | 0.36 | 0.06 | 0.09 | 1.09 | 1.48 | (0.04) | |
| 31 | Uchumi Supermarket Ltd | 1 | 1.15 | 8.01 | 7.02 | 56.24 | 2.73 | - | 0.34 | 0.34 | 7.71 | 7.71 | 0.21 | |
| 32 | Unilever Tea Kenya Ltd | 1 | 1.84 | 10.56 | 6.19 | 65.31 | 0.82 | 0.31 | 0.08 | 0.10 | 0.71 | 0.93 | 0.12 | |
| 33 | Williamson Tea Kenya Ltd | 1 | 1.51 | 9.74 | 2.87 | 27.98 | 0.38 | 0.33 | 0.04 | 0.05 | 0.52 | 0.71 | 0.07 | |
| 34 | Athi River Mining | 0 | 1.24 | 10.04 | - | - | 0.31 | 0.17 | 0.03 | 0.04 | 0.91 | 1.06 | 0.07 | |
| 35 | C.F.C Bank Ltd | 0 | 0.09 | 6.23 | 6.67 | 41.52 | 0.56 | 0.99 | 0.09 | 0.10 | 0.86 | 0.99 | (2.12) | |
| 36 | Car & General (K) Ltd | 0 | 0.87 | (98.74) | - | - | 1.02 | 0.11 | 0.01 | 0.01 | 1.03 | 1.15 | (0.09) | |
| 37 | E.A Portland Cement Ltd | 0 | 1.93 | (2.66) | - | - | 0.15 | 3.48 | (0.06) | (0.26) | 0.40 | 1.80 | 0.10 | |
| 38 | Eaagads Ltd | 0 | 4.14 | (18.84) | - | - | 0.87 | 0.23 | (0.05) | (0.06) | 0.33 | 0.41 | 0.27 | |
| 39 | Express Ltd | 0 | 0.78 | (13.46) | - | - | 0.26 | 0.16 | (0.02) | (0.02) | 10.12 | 11.72 | (0.39) | |
| 40 | Kenya Commercial Bank Ltd | 0 | 0.89 | (6.16) | - | - | 0.36 | 0.02 | (0.06) | (0.06) | 0.82 | 0.82 | (0.11) | |
| 41 | Kenya Orchards Ltd | 0 | 0.68 | (271.70) | - | - | 0.01 | (1.84) | (0.46) | 0.38 | 3.66 | (3.08) | (1.36) | |
| 42 | Marshalls (E.A.) Ltd | 0 | 0.78 | (3.24) | - | - | 0.98 | 0.15 | (0.30) | (0.35) | 4.38 | 5.02 | (0.58) | |
| 43 | National Bank of Kenya Ltd | 0 | 0.04 | (0.29) | - | - | 0.29 | 0.46 | (1.02) | (1.02) | 0.92 | 0.92 | (7.00) | |
| 44 | Pan Africa Insurance Holdings Ltd | 0 | 12.65 | (8.12) | - | - | 0.22 | 0.08 | (0.03) | (0.04) | 0.02 | 0.03 | 0.61 | |
| 45 | Rea Vipingo Plantations Ltd | 0 | 1.13 | (6.53) | - | - | 0.37 | 0.35 | (0.06) | (0.08) | 0.99 | 1.34 | 0.05 | |
| 46 | Standard Group Ltd | 0 | 0.76 | (1.01) | - | - | 1.20 | - | - | - | 14.17 | (5.94) | (1.32) | |
| 47 | Total Kenya Ltd | 0 | 1.01 | 14.91 | - | - | 1.87 | 0.01 | 0.13 | 0.13 | 14.08 | 14.16 | 0.08 | |
| 48 | Unga Group Ltd | 0 | 0.86 | (1.57) | - | - | 0.31 | 0.10 | (0.20) | (0.37) | 2.93 | 5.52 | (0.13) | |

**(SOURCE: NSE HANDBOOK 2004/5)**

** Suspended from the Stock market*

*** Missing Data*

1 = Paid Dividends

0 = Did not Pay Dividends

| | N | Minimum | Maximum | Mean | Std. | Variance | Skewness | | Kurtosis | |
|---|---|---|---|---|---|---|---|---|---|---|
| | *Statistic* | *Statistic* | *Statistic* | *Statistic* | Statistic | Statistic | Statistic | Std. Error | Statistic | Std. Error |
| CR | 45 | .39 | 12.75 | 2.0692 | 2.19388 | 4.813 | 3.289 | .354 | 12.977 | .695 |
| PE | 45 | -95.30 | 54.46 | 9.3209 | 19.46627 | 378.936 | -3.376 | .354 | 19.513 | .695 |
| DIVYD | 45 | .00 | 40.85 | 5.1051 | 7.21209 | 52.014 | 3.222 | .354 | 13.548 | .695 |
| DIVPAY | 45 | -58.51 | 236.32 | 40.2622 | 50.90717 | 2591.540 | 1.471 | .354 | 3.852 | .695 |
| PRICEBK | 45 | .11 | 6.70 | 1.6482 | 1.44660 | 2.093 | 1.671 | .354 | 2.914 | .695 |
| DEBTEQ | 45 | .00 | 160.62 | 5.0592 | 23.94024 | 573.135 | 6.522 | .354 | 43.232 | .695 |
| ROI | 45 | -1.33 | .37 | .0720 | .23690 | .056 | -4.823 | .354 | 28.758 | .695 |
| ROE | 45 | -6.36 | 1.18 | -.0676 | 1.13000 | 1.277 | -4.805 | .354 | 24.406 | .695 |
| TURNTA | 45 | .05 | 15.13 | 1.9921 | 2.93414 | 8.609 | 2.943 | .354 | 9.460 | .695 |
| TURNEQ | 45 | .07 | 72.41 | 4.5560 | 11.27396 | 127.102 | 5.293 | .354 | 31.180 | .695 |
| WCTA | 45 | -2.52 | .76 | .0715 | .48326 | .234 | -3.685 | .354 | 18.969 | .695 |
| INCEAT | 45 | -4.56 | 38.90 | 1.9452 | 6.48408 | 42.043 | 4.553 | .354 | 24.682 | .695 |
| Valid N (listwise) | 45 | | | | | | | | | |

**Descriptive Statistics-2003**

| | N | Minimum | Maximum | Mean | Std. | Variance | Skewness | | Kurtosis | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Statistic | Statistic | Statistic | Statistic | Statistic | Statistic | Statistic | Std. Error | Statistic | Std. Error |
| CR | 47 | .02 | 12.36 | 2.0114 | 2.14834 | 4.615 | 2.879 | .347 | 11.326 | .681 |
| PE | 47 | -52.34 | 95.81 | 10.2515 | 24.08907 | 580.283 | .236 | .347 | 3.629 | .681 |
| DIVYD | 47 | .00 | 22.00 | 3.3791 | 4.00137 | 16.011 | 2.401 | .347 | 9.159 | .681 |
| DIVPAY | 47 | .00 | 471.05 | 59.6221 | 86.45016 | 7473.630 | 2.986 | .347 | 11.328 | .681 |
| PRICEBK | 47 | .07 | 9.30 | 1.7104 | 1.93246 | 3.734 | 2.232 | .347 | 5.431 | .681 |
| DEBTEQ | 47 | .00 | 18.38 | .9513 | 3.08000 | 9.486 | 4.923 | .347 | 25.144 | .681 |
| ROI | 47 | -.49 | .43 | .0603 | .13937 | .019 | -.930 | .347 | 5.116 | .681 |
| ROE | 47 | -5.94 | .43 | -.1224 | .99335 | .987 | -5.139 | .347 | 27.890 | .681 |
| TURNTA | 47 | .04 | 28.46 | 2.2457 | 4.54883 | 20.692 | 4.665 | .347 | 24.904 | .681 |
| TURNEQ | 47 | .04 | 345.71 | 9.9040 | 50.19889 | 2519.929 | 6.792 | .347 | 46.395 | .681 |
| WCTA | 47 | -9.22 | .76 | -.8474 | 2.44904 | 5.998 | -2.428 | .347 | 5.101 | .681 |
| INCEAT | 47 | ********* | ********* | ********* | ********* | 16.639 | -4.464 | .347 | 26.507 | .681 |
| Valid N (listwise) | 47 | | | | | | | | | |

**Descriptive Statistics -2002**

| | N | Minimum | Maximum | Mean | Std. | Variance | Skewness | | Kurtosis | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Statistic | Statistic | Statistic | Statistic | Statistic | Statistic | Statistic | Std. Error | Statistic | Std. Error |
| CR | 47 | .03 | 18.55 | 2.1229 | 2.93556 | 8.618 | 4.243 | .347 | 21.870 | .681 |
| PE | 47 | -72.29 | 113.82 | 7.0315 | 25.65602 | 658.231 | 1.153 | .347 | 8.023 | .681 |
| DIVYD | 47 | .00 | 21.43 | 5.7096 | 5.51075 | 30.368 | .716 | .347 | -.078 | .681 |
| DIVPAY | 47 | -273.84 | 2169.00 | 79.4304 | 319.14392 | 101852.84 | 6.325 | .347 | 42.362 | .681 |
| PRICEBK | 47 | .03 | 5.93 | .7340 | .93867 | .881 | 4.072 | .347 | 20.689 | .681 |
| DEBTEQ | 47 | .00 | 5.04 | .5596 | 1.15216 | 1.327 | 3.136 | .347 | 9.077 | .681 |
| ROI | 47 | -.57 | .39 | .0491 | .13944 | .019 | -2.212 | .347 | 9.872 | .681 |
| ROE | 47 | -.70 | .83 | .0537 | .21866 | .048 | -.779 | .347 | 7.330 | .681 |
| TURNTA | 47 | .03 | 27.52 | 2.3297 | 4.45204 | 19.821 | 4.502 | .347 | 23.253 | .681 |
| TURNEQ | 47 | .04 | 49.88 | 3.9431 | 9.06910 | 82.248 | 4.326 | .347 | 19.120 | .681 |
| WCTA | 47 | -9.47 | 3.36 | -.6805 | 2.48900 | 6.195 | -2.443 | .347 | 5.789 | .681 |
| INCEAT | 47 | ********* | ********* | ********* | ********* | 14.240 | .282 | .347 | 17.260 | .681 |
| Valid N (listwise) | 47 | | | | | | | | | |

**Descriptive Statistics-2001**

| | N | Minimum | Maximum | Mean | Std. | Variance | Skewness | | Kurtosis | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Statistic | Statistic | Statistic | Statistic | Statistic | Statistic | Statistic | Std. Error | Statistic | Std. Error |
| CR | 47 | .04 | 16.40 | 2.0773 | 2.94948 | 8.699 | 3.435 | .347 | 13.250 | .681 |
| PE | 47 | -79.25 | 4861.55 | 113.3113 | 708.40501 | 501837.66 | 6.833 | .347 | 46.789 | .681 |
| DIVYD | 47 | .00 | 19.31 | 5.9806 | 5.81596 | 33.825 | .580 | .347 | -.811 | .681 |
| DIVPAY | 47 | -148.72 | 424.46 | 51.1804 | 80.91711 | 6547.579 | 2.233 | .347 | 9.991 | .681 |
| PRICEBK | 47 | .00 | 6.59 | .7343 | 1.00805 | 1.016 | 4.679 | .347 | 25.649 | .681 |
| DEBTEQ | 47 | -1.44 | 5.80 | .4216 | 1.14933 | 1.321 | 3.644 | .347 | 14.561 | .681 |
| ROI | 47 | -.78 | .98 | .0501 | .21565 | .047 | .359 | .347 | 11.525 | .681 |
| ROE | 47 | -2.65 | 1.27 | -.0352 | .57686 | .333 | -3.134 | .347 | 13.149 | .681 |
| TURNTA | 47 | .03 | 19.43 | 2.1909 | 3.97589 | 15.808 | 3.388 | .347 | 11.921 | .681 |
| TURNEQ | 47 | -7.93 | 26.57 | 3.0977 | 6.15599 | 37.896 | 2.681 | .347 | 8.071 | .681 |
| WCTA | 47 | -8.78 | .71 | -.4760 | 1.80626 | 3.263 | -3.498 | .347 | 12.865 | .681 |
| INCEAT | 47 | -6.20 | 10.01 | .2702 | 2.89018 | 8.353 | 1.687 | .347 | 5.148 | .681 |
| Valid N (listwise) | 47 | | | | | | | | | |

Descriptive Statistics-2000

| | N | Minimum | Maximum | Mean | Std. | Variance | Skewness | | Kurtosis | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Statistic | Statistic | Statistic | Statistic | Statistic | Statistic | Statistic | Std. Error | Statistic | Std. Error |
| CR | 46 | .04 | 12.65 | 1.9868 | 2.30522 | 5.314 | 2.924 | .350 | 10.442 | .688 |
| PE | 46 | -271.70 | 42.39 | -2.4091 | 45.31706 | 2053.636 | -5.045 | .350 | 29.041 | .688 |
| DIVYD | 46 | .00 | 22.22 | 4.9313 | 5.06988 | 25.704 | 1.202 | .350 | 1.829 | .688 |
| DIVPAY | 46 | -27.73 | 222.22 | 43.1474 | 48.25749 | 2328.785 | 1.291 | .350 | 2.735 | .688 |
| PRICEBK | 46 | .01 | 3.18 | .7637 | .64839 | .420 | 1.950 | .350 | 4.579 | .688 |
| DEBTEQ | 46 | -1.84 | 3.48 | .2377 | .64017 | .410 | 2.439 | .350 | 16.705 | .688 |
| ROI | 46 | -1.02 | .34 | .0169 | .21524 | .046 | -2.813 | .350 | 11.934 | .688 |
| ROE | 46 | -1.02 | .57 | .0366 | .26601 | .071 | -1.972 | .350 | 6.599 | .688 |
| TURNTA | 46 | .02 | 14.17 | 2.0808 | 3.23724 | 10.480 | 2.823 | .350 | 7.783 | .688 |
| TURNEQ | 46 | -5.94 | 23.44 | 2.3146 | 4.52141 | 20.443 | 2.854 | .350 | 10.998 | .688 |
| WCTA | 46 | -7.09 | 1.00 | -.4319 | 1.69108 | 2.860 | -3.054 | .350 | 9.524 | .688 |
| Valid N (listwise) | 46 | | | | | | | | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CR | Correlation Coefficient | 1.000 | (0.171) | 0.317 | 0.213 | (0.132) | (0.255) | 0.150 | 0.135 | (0.187) | (0.186) | 0.278 | 0.077 |
| | Sig. (2-tailed) | . | 0.262 | 0.034 | 0.159 | 0.386 | 0.091 | 0.324 | 0.377 | 0.219 | 0.221 | 0.000 | 0.615 |
| | N | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 |
| PE | Correlation Coefficient | (0.171) | 1.000 | (0.082) | 0.436 | 0.601 | (0.012) | 0.363 | 0.383 | (0.014) | (0.089) | (0.090) | 0.030 |
| | Sig. (2-tailed) | 0.262 | . | 0.594 | 0.003 | 0.000 | 0.939 | 0.014 | 0.009 | 0.926 | 0.560 | 0.556 | 0.847 |
| | N | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 |
| DIVYD | Correlation Coefficient | 0.317 | (0.082) | 1.000 | 0.692 | 0.011 | (0.087) | 0.449 | 0.314 | (0.122) | (0.258) | 0.338 | 0.302 |
| | Sig. (2-tailed) | 0.034 | 0.594 | . | 0.000 | 0.941 | 0.572 | 0.002 | 0.036 | 0.426 | 0.087 | 0.023 | 0.044 |
| | N | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 |
| DIVPAY | Correlation Coefficient | 0.213 | 0.436 | 0.692 | 1.000 | 0.444 | (0.105) | 0.544 | 0.388 | (0.195) | (0.365) | 0.223 | 0.200 |
| | Sig. (2-tailed) | 0.159 | 0.003 | 0.000 | . | 0.002 | 0.494 | 0.000 | 0.008 | 0.199 | 0.014 | 0.140 | 0.187 |
| | N | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 |
| PRICEBK | Correlation Coefficient | (0.132) | 0.601 | 0.011 | 0.444 | 1.000 | 0.002 | 0.619 | 0.496 | 0.286 | 0.195 | 0.066 | (0.060) |
| | Sig. (2-tailed) | 0.386 | 0.000 | 0.941 | 0.002 | . | 0.988 | 0.000 | 0.001 | 0.056 | 0.199 | 0.667 | 0.696 |
| | N | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 |
| DEBTEQ | Correlation Coefficient | (0.255) | (0.012) | (0.087) | (0.105) | 0.002 | 1.000 | (0.176) | 0.001 | (0.275) | (0.024) | (0.451) | (0.110) |
| | Sig. (2-tailed) | 0.091 | 0.939 | 0.572 | 0.494 | 0.988 | . | 0.246 | 0.994 | 0.067 | 0.878 | 0.002 | 0.471 |
| | N | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 |
| ROI | Correlation Coefficient | 0.150 | 0.363 | 0.449 | 0.544 | 0.619 | (0.176) | 1.000 | 0.825 | 0.225 | (0.010) | 0.286 | 0.334 |
| | Sig. (2-tailed) | 0.324 | 0.014 | 0.002 | 0.000 | 0.000 | 0.246 | . | 0.000 | 0.137 | 0.948 | 0.057 | 0.025 |
| | N | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 |
| ROE | Correlation Coefficient | 0.135 | 0.383 | 0.314 | 0.388 | 0.496 | 0.001 | 0.825 | 1.000 | 0.184 | 0.147 | 0.242 | 0.407 |
| | Sig. (2-tailed) | 0.377 | 0.009 | 0.036 | 0.008 | 0.001 | 0.994 | 0.000 | . | 0.228 | 0.336 | 0.110 | 0.006 |
| | N | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 |
| TURNTA | Correlation Coefficient | (0.187) | (0.014) | (0.122) | (0.195) | 0.286 | (0.275) | 0.225 | 0.184 | 1.000 | 0.874 | 0.184 | 0.096 |
| | Sig. (2-tailed) | 0.219 | 0.926 | 0.426 | 0.199 | 0.056 | 0.067 | 0.137 | 0.228 | . | 0.000 | 0.225 | 0.530 |
| | N | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 |
| TURNEQ | Correlation Coefficient | (0.186) | (0.089) | (0.258) | (0.365) | 0.195 | (0.024) | (0.010) | 0.147 | 0.874 | 1.000 | 0.119 | 0.032 |
| | Sig. (2-tailed) | 0.221 | 0.560 | 0.087 | 0.014 | 0.199 | 0.878 | 0.948 | 0.336 | 0.000 | . | 0.436 | 0.833 |
| | N | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 |
| WCTA | Correlation Coefficient | 0.778 | (0.090) | 0.338 | 0.223 | 0.066 | (0.451) | 0.286 | 0.242 | 0.184 | 0.119 | 1.000 | 0.051 |
| | Sig. (2-tailed) | 0.000 | 0.556 | 0.023 | 0.140 | 0.667 | 0.002 | 0.057 | 0.110 | 0.225 | 0.436 | . | 0.741 |
| | N | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 |
| INCEAT | Correlation Coefficient | 0.077 | 0.030 | 0.302 | 0.200 | (0.060) | (0.110) | 0.334 | 0.407 | 0.096 | 0.032 | 0.051 | 1.000 |
| | Sig. (2-tailed) | 0.615 | 0.847 | 0.044 | 0.187 | 0.696 | 0.471 | 0.025 | 0.006 | 0.530 | 0.833 | 0.741 | . |
| | N | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 |

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

| | | CR | PE | DIVYD | DIVPAY | PRICEBK | DEBTEQ | ROI | ROE | TURNTA | TURNEQ | WCTA | INCEAT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CR | Correlation Coefficient | 1.000 | (0.171) | 0.317 | 0.213 | (0.132) | (0.255) | 0.150 | 0.135 | (0.187) | (0.186) | 0.778 | 0.077 |
| | Sig. (2-tailed) | . | 0.262 | 0.034 | 0.159 | 0.386 | 0.091 | 0.324 | 0.377 | 0.219 | 0.221 | 0.000 | 0.615 |
| | N | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 |
| PE | Correlation Coefficient | (0.171) | 1.000 | (0.082) | 0.436 | 0.601 | (0.012) | 0.363 | 0.383 | (0.014) | (0.089) | (0.090) | 0.030 |
| | Sig. (2-tailed) | 0.262 | . | 0.594 | 0.003 | 0.000 | 0.939 | 0.014 | 0.009 | 0.926 | 0.560 | 0.556 | 0.847 |
| | N | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 |
| DIVYD | Correlation Coefficient | 0.317 | (0.082) | 1.000 | 0.692 | 0.011 | (0.087) | 0.449 | 0.314 | (0.122) | (0.258) | 0.338 | 0.302 |
| | Sig. (2-tailed) | 0.034 | 0.594 | . | 0.000 | 0.941 | 0.572 | 0.002 | 0.036 | 0.426 | 0.087 | 0.023 | 0.044 |
| | N | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 |
| DIVPAY | Correlation Coefficient | 0.213 | 0.436 | 0.692 | 1.000 | 0.444 | (0.105) | 0.544 | 0.388 | (0.195) | (0.365) | 0.223 | 0.200 |
| | Sig. (2-tailed) | 0.159 | 0.003 | 0.000 | . | 0.002 | 0.494 | 0.000 | 0.008 | 0.199 | 0.014 | 0.140 | 0.187 |
| | N | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 |
| PRICEBK | Correlation Coefficient | (0.132) | 0.601 | 0.011 | 0.444 | 1.000 | 0.002 | 0.619 | 0.496 | 0.286 | 0.195 | 0.066 | (0.060) |
| | Sig. (2-tailed) | 0.386 | 0.000 | 0.941 | 0.002 | . | 0.988 | 0.000 | 0.001 | 0.056 | 0.199 | 0.667 | 0.696 |
| | N | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 |
| DEBTEQ | Correlation Coefficient | (0.255) | (0.012) | (0.087) | (0.105) | 0.002 | 1.000 | (0.176) | 0.001 | (0.275) | (0.024) | (0.451) | (0.110) |
| | Sig. (2-tailed) | 0.091 | 0.939 | 0.572 | 0.494 | 0.988 | . | 0.246 | 0.994 | 0.067 | 0.878 | 0.002 | 0.471 |
| | N | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 |
| ROI | Correlation Coefficient | 0.150 | 0.363 | 0.449 | 0.544 | 0.619 | (0.176) | 1.000 | 0.825 | 0.225 | (0.010) | 0.286 | 0.334 |
| | Sig. (2-tailed) | 0.324 | 0.014 | 0.002 | 0.000 | 0.000 | 0.246 | . | 0.000 | 0.137 | 0.948 | 0.057 | 0.025 |
| | N | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 |
| ROE | Correlation Coefficient | 0.135 | 0.383 | 0.314 | 0.388 | 0.496 | 0.001 | 0.825 | 1.000 | 0.184 | 0.147 | 0.242 | 0.407 |
| | Sig. (2-tailed) | 0.377 | 0.009 | 0.036 | 0.008 | 0.001 | 0.994 | 0.000 | . | 0.228 | 0.336 | 0.110 | 0.006 |
| | N | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 |
| TURNTA | Correlation Coefficient | (0.187) | (0.014) | (0.122) | (0.195) | 0.286 | (0.275) | 0.225 | 0.184 | 1.000 | 0.874 | 0.184 | 0.096 |
| | Sig. (2-tailed) | 0.219 | 0.926 | 0.426 | 0.199 | 0.056 | 0.067 | 0.137 | 0.228 | . | 0.000 | 0.225 | 0.530 |
| | N | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 |
| TURNEQ | Correlation Coefficient | (0.186) | (0.089) | (0.258) | (0.365) | 0.195 | (0.024) | (0.010) | 0.147 | 0.874 | 1.000 | 0.119 | 0.032 |
| | Sig. (2-tailed) | 0.221 | 0.560 | 0.087 | 0.014 | 0.199 | 0.878 | 0.948 | 0.336 | 0.000 | . | 0.436 | 0.833 |
| | N | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 |
| WCTA | Correlation Coefficient | 0.778 | (0.090) | 0.338 | 0.223 | 0.066 | (0.451) | 0.286 | 0.242 | 0.184 | 0.119 | 1.000 | 0.051 |
| | Sig. (2-tailed) | 0.000 | 0.556 | 0.023 | 0.140 | 0.667 | 0.002 | 0.057 | 0.110 | 0.225 | 0.436 | . | 0.741 |
| | N | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 |
| INCEAT | Correlation Coefficient | 0.077 | 0.030 | 0.302 | 0.200 | (0.060) | (0.110) | 0.334 | 0.407 | 0.096 | 0.032 | 0.051 | 1.000 |
| | Sig. (2-tailed) | 0.615 | 0.847 | 0.044 | 0.187 | 0.696 | 0.471 | 0.025 | 0.006 | 0.530 | 0.833 | 0.741 | . |
| | N | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 |

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

**Correlations** **Spearman's rho** **2003**

| | | CR | PE | DIVYD | DIVPAY | PRICEBK | DEBTEQ | ROI | ROE | TURNTA | TURNEQ | WCTA | INCEAT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CR | Correlation Coefficient | 1.000 | 0.189 | 0.381 | 0.410 | 0.027 | (0.132) | 0.029 | 0.040 | (0.167) | (0.208) | 0.815 | 0.165 |
| | Sig. (2-tailed) | . | 0.203 | 0.008 | 0.004 | 0.855 | 0.378 | 0.844 | 0.788 | 0.263 | 0.161 | 0.000 | 0.268 |
| | N | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 |
| PE | Correlation Coefficient | 0.189 | 1.000 | 0.531 | 0.657 | 0.339 | (0.036) | 0.376 | 0.359 | (0.025) | (0.128) | 0.249 | 0.325 |
| | Sig. (2-tailed) | 0.203 | . | 0.000 | 0.000 | 0.020 | 0.812 | 0.009 | 0.013 | 0.868 | 0.392 | 0.092 | 0.026 |
| | N | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 |
| DIVYD | Correlation Coefficient | 0.381 | 0.531 | 1.000 | 0.877 | 0.171 | (0.219) | 0.338 | 0.360 | (0.229) | (0.288) | 0.326 | 0.267 |
| | Sig. (2-tailed) | 0.008 | 0.000 | . | 0.000 | 0.251 | 0.139 | 0.020 | 0.013 | 0.122 | 0.049 | 0.025 | 0.070 |
| | N | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 |
| DIVPAY | Correlation Coefficient | 0.410 | 0.657 | 0.877 | 1.000 | 0.332 | (0.255) | 0.404 | 0.409 | (0.207) | (0.289) | 0.359 | 0.265 |
| | Sig. (2-tailed) | 0.004 | 0.000 | 0.000 | . | 0.023 | 0.083 | 0.005 | 0.004 | 0.162 | 0.049 | 0.013 | 0.072 |
| | N | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 |
| PRICEBK | Correlation Coefficient | 0.027 | 0.339 | 0.171 | 0.332 | 1.000 | (0.321) | 0.658 | 0.629 | 0.147 | (0.008) | 0.059 | 0.361 |
| | Sig. (2-tailed) | 0.855 | 0.020 | 0.251 | 0.023 | . | 0.028 | 0.000 | 0.000 | 0.322 | 0.958 | 0.695 | 0.013 |
| | N | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 |
| DEBTEQ | Correlation Coefficient | (0.132) | (0.036) | (0.219) | (0.255) | (0.321) | 1.000 | (0.464) | (0.400) | 0.057 | 0.265 | (0.185) | (0.230) |
| | Sig. (2-tailed) | 0.378 | 0.812 | 0.139 | 0.083 | 0.028 | . | 0.001 | 0.005 | 0.706 | 0.072 | 0.213 | 0.120 |
| | N | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 |
| ROI | Correlation Coefficient | 0.029 | 0.376 | 0.338 | 0.404 | 0.658 | (0.464) | 1.000 | 0.971 | 0.168 | (0.013) | 0.108 | 0.619 |
| | Sig. (2-tailed) | 0.844 | 0.009 | 0.020 | 0.005 | 0.000 | 0.001 | . | 0.000 | 0.260 | 0.930 | 0.468 | 0.000 |
| | N | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 |
| ROE | Correlation Coefficient | 0.040 | 0.359 | 0.360 | 0.409 | 0.629 | (0.400) | 0.971 | 1.000 | 0.137 | (0.003) | 0.113 | 0.632 |
| | Sig. (2-tailed) | 0.788 | 0.013 | 0.013 | 0.004 | 0.000 | 0.005 | 0.000 | . | 0.358 | 0.984 | 0.448 | 0.000 |
| | N | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 |
| TURNTA | Correlation Coefficient | (0.167) | (0.025) | (0.229) | (0.207) | 0.147 | 0.057 | 0.168 | 0.137 | 1.000 | 0.928 | 0.122 | 0.012 |
| | Sig. (2-tailed) | 0.263 | 0.868 | 0.122 | 0.162 | 0.322 | 0.706 | 0.260 | 0.358 | . | 0.000 | 0.415 | 0.937 |
| | N | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 |
| TURNEQ | Correlation Coefficient | (0.208) | (0.128) | (0.288) | (0.289) | (0.008) | 0.265 | (0.013) | (0.003) | 0.928 | 1.000 | 0.057 | (0.080) |
| | Sig. (2-tailed) | 0.161 | 0.392 | 0.049 | 0.049 | 0.958 | 0.072 | 0.930 | 0.984 | 0.000 | . | 0.705 | 0.591 |
| | N | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 |
| WCTA | Correlation Coefficient | 0.815 | 0.249 | 0.326 | 0.359 | 0.059 | (0.185) | 0.108 | 0.113 | 0.122 | 0.057 | 1.000 | 0.152 |
| | Sig. (2-tailed) | 0.000 | 0.092 | 0.025 | 0.013 | 0.695 | 0.213 | 0.468 | 0.448 | 0.415 | 0.705 | . | 0.309 |
| | N | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 |
| INCEAT | Correlation Coefficient | 0.165 | 0.325 | 0.267 | 0.265 | 0.361 | (0.230) | 0.619 | 0.632 | 0.012 | (0.080) | 0.152 | 1.000 |
| | Sig. (2-tailed) | 0.268 | 0.026 | 0.070 | 0.072 | 0.013 | 0.120 | 0.000 | 0.000 | 0.937 | 0.591 | 0.309 | . |
| | N | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 |

** Correlation is significant at the 0.01 level (2-tailed).

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CR | Correlation Coefficient | 1.000 | 0.003 | 0.295 | 0.244 | 0.096 | (0.215) | 0.004 | (0.034) | (0.212) | (0.202) | 0.814 | 0.000 |
| | Sig. (2-tailed) | . | 0.986 | 0.044 | 0.098 | 0.521 | 0.146 | 0.978 | 0.819 | 0.153 | 0.174 | 0.000 | 0.998 |
| | N | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 |
| PE | Correlation Coefficient | 0.003 | 1.000 | 0.132 | 0.546 | 0.454 | 0.072 | 0.240 | 0.248 | (0.006) | 0.057 | (0.004) | 0.205 |
| | Sig. (2-tailed) | 0.986 | . | 0.375 | 0.000 | 0.001 | 0.630 | 0.104 | 0.092 | 0.969 | 0.702 | 0.979 | 0.167 |
| | N | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 |
| DIVYD | Correlation Coefficient | 0.295 | 0.132 | 1.000 | 0.733 | 0.162 | (0.182) | 0.491 | 0.562 | (0.197) | (0.211) | 0.193 | 0.116 |
| | Sig. (2-tailed) | 0.044 | 0.375 | . | 0.000 | 0.275 | 0.220 | 0.000 | 0.000 | 0.185 | 0.155 | 0.194 | 0.436 |
| | N | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 |
| DIVPAY | Correlation Coefficient | 0.244 | 0.546 | 0.733 | 1.000 | 0.334 | (0.111) | 0.451 | 0.473 | (0.146) | (0.146) | 0.106 | 0.151 |
| | Sig. (2-tailed) | 0.098 | 0.000 | 0.000 | . | 0.022 | 0.460 | 0.001 | 0.001 | 0.329 | 0.328 | 0.476 | 0.313 |
| | N | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 |
| PRICEBK | Correlation Coefficient | 0.096 | 0.454 | 0.162 | 0.334 | 1.000 | (0.100) | 0.397 | 0.373 | 0.153 | 0.061 | 0.049 | 0.034 |
| | Sig. (2-tailed) | 0.521 | 0.001 | 0.275 | 0.022 | . | 0.502 | 0.006 | 0.010 | 0.305 | 0.682 | 0.746 | 0.820 |
| | N | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 |
| DEBTEQ | Correlation Coefficient | (0.215) | 0.072 | (0.182) | (0.111) | (0.100) | 1.000 | (0.348) | (0.159) | 0.135 | 0.321 | (0.154) | (0.225) |
| | Sig. (2-tailed) | 0.146 | 0.630 | 0.220 | 0.460 | 0.502 | . | 0.016 | 0.287 | 0.365 | 0.028 | 0.301 | 0.129 |
| | N | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 |
| ROI | Correlation Coefficient | 0.004 | 0.240 | 0.491 | 0.451 | 0.397 | (0.348) | 1.000 | 0.855 | 0.156 | (0.034) | 0.073 | 0.330 |
| | Sig. (2-tailed) | 0.978 | 0.104 | 0.000 | 0.001 | 0.006 | 0.016 | . | 0.000 | 0.296 | 0.820 | 0.625 | 0.024 |
| | N | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 |
| ROE | Correlation Coefficient | (0.034) | 0.248 | 0.562 | 0.473 | 0.373 | (0.159) | 0.855 | 1.000 | 0.101 | 0.048 | 0.035 | 0.362 |
| | Sig. (2-tailed) | 0.819 | 0.092 | 0.000 | 0.001 | 0.010 | 0.287 | 0.000 | . | 0.499 | 0.747 | 0.816 | 0.012 |
| | N | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 |
| TURNTA | Correlation Coefficient | (0.212) | (0.006) | (0.197) | (0.146) | 0.153 | 0.135 | 0.156 | 0.101 | 1.000 | 0.923 | 0.121 | 0.004 |
| | Sig. (2-tailed) | 0.153 | 0.969 | 0.185 | 0.329 | 0.305 | 0.365 | 0.296 | 0.499 | . | 0.000 | 0.417 | 0.977 |
| | N | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 |
| TURNEQ | Correlation Coefficient | (0.202) | 0.057 | (0.211) | (0.146) | 0.061 | 0.321 | (0.034) | 0.048 | 0.923 | 1.000 | 0.105 | (0.011) |
| | Sig. (2-tailed) | 0.174 | 0.702 | 0.155 | 0.328 | 0.682 | 0.028 | 0.820 | 0.747 | 0.000 | . | 0.481 | 0.939 |
| | N | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 |
| WCTA | Correlation Coefficient | 0.814 | (0.004) | 0.193 | 0.106 | 0.049 | (0.154) | 0.073 | 0.035 | 0.121 | 0.105 | 1.000 | 0.020 |
| | Sig. (2-tailed) | 0.000 | 0.979 | 0.194 | 0.476 | 0.746 | 0.301 | 0.625 | 0.816 | 0.417 | 0.481 | . | 0.893 |
| | N | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 |
| INCEAT | Correlation Coefficient | 0.000 | 0.205 | 0.116 | 0.151 | 0.034 | (0.225) | 0.330 | 0.362 | 0.004 | (0.011) | 0.020 | 1.000 |
| | Sig. (2-tailed) | 0.998 | 0.167 | 0.436 | 0.313 | 0.820 | 0.129 | 0.024 | 0.012 | 0.977 | 0.939 | 0.893 | . |
| | N | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 |

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

**Correlations** **Spearman's rho** **2001**

| | | CR | PE | DIVYD | DIVPAY | PRICEBK | DEBTEQ | ROI | ROE | TURNTA | TURNEQ | WCTA | INCEAT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CR | Correlation Coefficient | 1.000 | 0.258 | 0.331 | 0.358 | 0.011 | (0.024) | 0.099 | 0.102 | (0.019) | (0.065) | 0.872 | (0.085) |
| | Sig. (2-tailed) | . | 0.080 | 0.023 | 0.014 | 0.943 | 0.874 | 0.509 | 0.496 | 0.897 | 0.666 | 0.000 | 0.571 |
| | N | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 |
| PE | Correlation Coefficient | 0.258 | 1.000 | 0.092 | 0.591 | 0.051 | 0.082 | 0.164 | 0.228 | (0.281) | (0.281) | 0.197 | 0.045 |
| | Sig. (2-tailed) | 0.080 | . | 0.536 | 0.000 | 0.735 | 0.584 | 0.272 | 0.124 | 0.056 | 0.056 | 0.184 | 0.763 |
| | N | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 |
| DIVYD | Correlation Coefficient | 0.331 | 0.092 | 1.000 | 0.632 | (0.027) | (0.043) | 0.393 | 0.556 | (0.232) | (0.157) | 0.345 | (0.071) |
| | Sig. (2-tailed) | 0.023 | 0.536 | . | 0.000 | 0.859 | 0.772 | 0.006 | 0.000 | 0.117 | 0.291 | 0.018 | 0.637 |
| | N | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 |
| DIVPAY | Correlation Coefficient | 0.358 | 0.591 | 0.632 | 1.000 | 0.366 | (0.045) | 0.256 | 0.359 | (0.254) | (0.233) | 0.295 | (0.188) |
| | Sig. (2-tailed) | 0.014 | 0.000 | 0.000 | . | 0.011 | 0.764 | 0.082 | 0.013 | 0.085 | 0.115 | 0.044 | 0.206 |
| | N | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 |
| PRICEBK | Correlation Coefficient | 0.011 | 0.051 | (0.027) | 0.366 | 1.000 | (0.195) | 0.125 | 0.003 | 0.131 | 0.020 | (0.038) | (0.309) |
| | Sig. (2-tailed) | 0.943 | 0.735 | 0.859 | 0.011 | . | 0.188 | 0.402 | 0.986 | 0.380 | 0.896 | 0.797 | 0.034 |
| | N | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 |
| DEBTEQ | Correlation Coefficient | (0.024) | 0.082 | (0.043) | (0.045) | (0.195) | 1.000 | (0.117) | 0.064 | 0.107 | 0.392 | (0.036) | 0.040 |
| | Sig. (2-tailed) | 0.874 | 0.584 | 0.772 | 0.764 | 0.188 | . | 0.433 | 0.670 | 0.474 | 0.006 | 0.811 | 0.792 |
| | N | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 |
| ROI | Correlation Coefficient | 0.099 | 0.164 | 0.393 | 0.256 | 0.125 | (0.117) | 1.000 | 0.804 | 0.069 | (0.154) | 0.169 | 0.383 |
| | Sig. (2-tailed) | 0.509 | 0.272 | 0.006 | 0.082 | 0.402 | 0.433 | . | 0.000 | 0.644 | 0.302 | 0.257 | 0.008 |
| | N | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 |
| ROE | Correlation Coefficient | 0.102 | 0.228 | 0.556 | 0.359 | 0.003 | 0.064 | 0.804 | 1.000 | (0.153) | (0.042) | 0.219 | 0.331 |
| | Sig. (2-tailed) | 0.496 | 0.124 | 0.000 | 0.013 | 0.986 | 0.670 | 0.000 | . | 0.304 | 0.779 | 0.140 | 0.023 |
| | N | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 |
| TURNTA | Correlation Coefficient | (0.019) | (0.281) | (0.232) | (0.254) | 0.131 | 0.107 | 0.069 | (0.153) | 1.000 | 0.707 | 0.040 | 0.012 |
| | Sig. (2-tailed) | 0.897 | 0.056 | 0.117 | 0.085 | 0.380 | 0.474 | 0.644 | 0.304 | . | 0.000 | 0.791 | 0.937 |
| | N | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 |
| TURNEQ | Correlation Coefficient | (0.065) | (0.281) | (0.157) | (0.233) | 0.020 | 0.392 | (0.154) | (0.042) | 0.707 | 1.000 | 0.058 | (0.121) |
| | Sig. (2-tailed) | 0.666 | 0.056 | 0.291 | 0.115 | 0.896 | 0.006 | 0.302 | 0.779 | 0.000 | . | 0.697 | 0.417 |
| | N | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 |
| WCTA | Correlation Coefficient | 0.872 | 0.197 | 0.345 | 0.295 | (0.038) | (0.036) | 0.169 | 0.219 | 0.040 | 0.058 | 1.000 | (0.028) |
| | Sig. (2-tailed) | 0.000 | 0.184 | 0.018 | 0.044 | 0.797 | 0.811 | 0.257 | 0.140 | 0.791 | 0.697 | . | 0.849 |
| | N | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 |
| INCEAT | Correlation Coefficient | (0.085) | 0.045 | (0.071) | (0.188) | (0.309) | 0.040 | 0.383 | 0.331 | 0.012 | (0.121) | (0.028) | 1.000 |
| | Sig. (2-tailed) | 0.571 | 0.763 | 0.637 | 0.206 | 0.034 | 0.792 | 0.008 | 0.023 | 0.937 | 0.417 | 0.849 | . |
| | N | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 | 47.000 |

*. Correlation is significant at the 0.05 level (2-tailed).

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Sig. (2-tailed) | 0.034 | . | 0.003 | 0.000 | 0.014 | 0.374 | 0.002 | 0.017 | 0.423 | 0.809 | 0.053 |
| | N | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 |
| DIVYD | Correlation Coefficient | 0.080 | 0.425 | 1.000 | 0.741 | 0.283 | (0.072) | 0.727 | 0.663 | (0.043) | 0.073 | 0.323 |
| | Sig. (2-tailed) | 0.599 | 0.003 | . | 0.000 | 0.057 | 0.636 | 0.000 | 0.000 | 0.777 | 0.627 | 0.029 |
| | N | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 |
| DIVPAY | Correlation Coefficient | 0.384 | 0.703 | 0.741 | 1.000 | 0.402 | (0.230) | 0.598 | 0.483 | (0.215) | (0.149) | 0.472 |
| | Sig. (2-tailed) | 0.008 | 0.000 | 0.000 | . | 0.006 | 0.125 | 0.000 | 0.001 | 0.151 | 0.322 | 0.001 |
| | N | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 |
| PRICEBK | Correlation Coefficient | 0.127 | 0.359 | 0.283 | 0.402 | 1.000 | (0.156) | 0.575 | 0.400 | 0.187 | 0.088 | 0.181 |
| | Sig. (2-tailed) | 0.402 | 0.014 | 0.057 | 0.006 | . | 0.301 | 0.000 | 0.006 | 0.214 | 0.560 | 0.229 |
| | N | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 |
| DEBTEQ | Correlation Coefficient | (0.193) | (0.134) | (0.072) | (0.230) | (0.156) | 1.000 | (0.167) | (0.255) | (0.086) | 0.293 | (0.161) |
| | Sig. (2-tailed) | 0.198 | 0.374 | 0.636 | 0.125 | 0.301 | . | 0.267 | 0.087 | 0.570 | 0.048 | 0.285 |
| | N | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 |
| ROI | Correlation Coefficient | 0.210 | 0.442 | 0.727 | 0.598 | 0.575 | (0.167) | 1.000 | 0.837 | 0.026 | 0.107 | 0.372 |
| | Sig. (2-tailed) | 0.161 | 0.002 | 0.000 | 0.000 | 0.000 | 0.267 | . | 0.000 | 0.863 | 0.479 | 0.011 |
| | N | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 |
| ROE | Correlation Coefficient | 0.033 | 0.350 | 0.663 | 0.483 | 0.400 | (0.255) | 0.837 | 1.000 | 0.141 | 0.058 | 0.194 |
| | Sig. (2-tailed) | 0.828 | 0.017 | 0.000 | 0.001 | 0.006 | 0.087 | 0.000 | . | 0.351 | 0.702 | 0.197 |
| | N | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 |
| TURNTA | Correlation Coefficient | (0.368) | (0.121) | (0.043) | (0.215) | 0.187 | (0.086) | 0.026 | 0.141 | 1.000 | 0.718 | (0.119) |
| | Sig. (2-tailed) | 0.012 | 0.423 | 0.777 | 0.151 | 0.214 | 0.570 | 0.863 | 0.351 | . | 0.000 | 0.432 |
| | N | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 |
| TURNEQ | Correlation Coefficient | (0.212) | 0.037 | 0.073 | (0.149) | 0.088 | 0.293 | 0.107 | 0.058 | 0.718 | 1.000 | (0.004) |
| | Sig. (2-tailed) | 0.157 | 0.809 | 0.627 | 0.322 | 0.560 | 0.048 | 0.479 | 0.702 | 0.000 | . | 0.978 |
| | N | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 |
| WCTA | Correlation Coefficient | 0.839 | 0.287 | 0.323 | 0.472 | 0.181 | (0.161) | 0.372 | 0.194 | (0.119) | (0.004) | 1.000 |
| | Sig. (2-tailed) | 0.000 | 0.053 | 0.029 | 0.001 | 0.229 | 0.285 | 0.011 | 0.197 | 0.432 | 0.978 | . |
| | N | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 | 46.000 |

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

*Case Processing Summary*

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 45 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 45 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 45 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| | | | Predicted | | |
|---|---|---|---|---|---|
| | | | DIV | | Percentage Correct |
| | Observed | | 0 | 1 | |
| Step 0 | DIV | 0 | 0 | 13 | .0 |
| | | 1 | 0 | 32 | 100.0 |
| | Overall Percentage | | | | 71.1 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .901 | .329 | 7.501 | 1 | .006 | 2.462 |

**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | CR | .002 | 1 | .966 |
| | Overall Statistics | | .002 | 1 | .966 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | .002 | 1 | .966 |
| | Block | .002 | 1 | .966 |
| | Model | .002 | 1 | .966 |



**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 54.102 | .000 | .000 |

**Classification Table[a]**

| | | | Predicted | | |
|---|---|---|---|---|---|
| | | | DIV | | Percentage Correct |
| | Observed | | 0 | 1 | |
| Step 1 | DIV | 0 | 0 | 13 | .0 |
| | | 1 | 0 | 32 | 100.0 |
| | Overall Percentage | | | | 71.1 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | CR | -.006 | .150 | .002 | 1 | .966 | .994 |
| | Constant | .914 | .454 | 4.055 | 1 | .044 | 2.494 |

a. Variable(s) entered on step 1: CR.

# Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 45 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 45 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 45 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| | | | Predicted | | |
|---|---|---|---|---|---|
| | | | DIV | | Percentage Correct |
| | Observed | | 0 | 1 | |
| Step 0 | DIV | 0 | 0 | 13 | .0 |
| | | 1 | 0 | 32 | 100.0 |
| | Overall Percentage | | | | 71.1 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .901 | .329 | 7.501 | 1 | .006 | 2.462 |

**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | PE | 1.404 | 1 | .236 |
| | Overall Statistics | | 1.404 | 1 | .236 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 1.310 | 1 | .252 |
| | Block | 1.310 | 1 | .252 |
| | Model | 1.310 | 1 | .252 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 52.794 | .029 | .041 |

**Classification Table[a]**

| | | | Predicted | | |
|---|---|---|---|---|---|
| | | | DIV | | Percentage Correct |
| | Observed | | 0 | 1 | |
| Step 1 | DIV | 0 | 1 | 12 | 7.7 |
| | | 1 | 0 | 32 | 100.0 |
| | Overall Percentage | | | | 73.3 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | PE | .019 | .018 | 1.124 | 1 | .289 | 1.019 |
| | Constant | .737 | .368 | 4.021 | 1 | .045 | 2.090 |

a. Variable(s) entered on step 1: PE.

## Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 45 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 45 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 45 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.



**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| | | | Predicted | | |
|---|---|---|---|---|---|
| | | | DIV | | Percentage Correct |
| | Observed | | 0 | 1 | |
| Step 0 | DIV | 0 | 0 | 13 | .0 |
| | | 1 | 0 | 32 | 100.0 |
| | Overall Percentage | | | | 71.1 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .901 | .329 | 7.501 | 1 | .006 | 2.462 |

**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | DIVYD | 9.368 | 1 | .002 |
| | Overall Statistics | | 9.368 | 1 | .002 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 46.899 | 1 | .000 |
| | Block | 46.899 | 1 | .000 |
| | Model | 46.899 | 1 | .000 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 7.205 | .647 | .925 |

Classification Table[a]

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | DIV | | Percentage Correct |
| | | | 0 | 1 | |
| Step 1 | DIV | 0 | 13 | 0 | 100.0 |
| | | 1 | 1 | 31 | 96.9 |
| | Overall Percentage | | | | 97.8 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | DIVYD | 11.838 | 1020.831 | .000 | 1 | .991 | 138396.500 |
| | Constant | -2.565 | 1.038 | 6.109 | 1 | .013 | .077 |

a. Variable(s) entered on step 1: DIVYD.

## Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 45 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 45 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 45 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | DIV | | Percentage Correct |
| | | | 0 | 1 | |
| Step 0 | DIV | 0 | 0 | 13 | .0 |
| | | 1 | 0 | 32 | 100.0 |
| | Overall Percentage | | | | 71.1 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .901 | .329 | 7.501 | 1 | .006 | 2.462 |



**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | DIVPAY | 11.695 | 1 | .001 |
| | Overall Statistics | | 11.695 | 1 | .001 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 21.814 | 1 | .000 |
| | Block | 21.814 | 1 | .000 |
| | Model | 21.814 | 1 | .000 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 32.290 | .384 | .549 |

**Classification Table[a]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | DIV | | Percentage Correct |
| | | | 0 | 1 | |
| Step 1 | DIV | 0 | 13 | 0 | 100.0 |
| | | 1 | 3 | 29 | 90.6 |
| | Overall Percentage | | | | 93.3 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | DIVPAY | .076 | .029 | 7.126 | 1 | .008 | 1.079 |
| | Constant | -.516 | .496 | 1.083 | 1 | .298 | .597 |

a. Variable(s) entered on step 1: DIVPAY.

## Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 45 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 45 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 45 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | DIV | | Percentage Correct |
| | | | 0 | 1 | |
| Step 0 | DIV | 0 | 0 | 13 | .0 |
| | | 1 | 0 | 32 | 100.0 |
| | Overall Percentage | | | | 71.1 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .901 | .329 | 7.501 | 1 | .006 | 2.462 |

**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | PRICEBK | .561 | 1 | .454 |
| | Overall Statistics | | .561 | 1 | .454 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | .603 | 1 | .438 |
| | Block | .603 | 1 | .438 |
| | Model | .603 | 1 | .438 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 53.501 | .013 | .019 |



**Classification Table[a]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | DIV | | Percentage Correct |
| | | | 0 | 1 | |
| Step 1 | DIV | 0 | 0 | 13 | .0 |
| | | 1 | 0 | 32 | 100.0 |
| | Overall Percentage | | | | 71.1 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | PRICEBK | .193 | .262 | .546 | 1 | .460 | 1.213 |
| | Constant | .599 | .508 | 1.390 | 1 | .238 | 1.820 |

a. Variable(s) entered on step 1: PRICEBK.

# Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 45 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 45 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 45 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | DIV | | Percentage Correct |
| | | | 0 | 1 | |
| Step 0 | DIV | 0 | 0 | 13 | .0 |
| | | 1 | 0 | 32 | 100.0 |
| | Overall Percentage | | | | 71.1 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .901 | .329 | 7.501 | 1 | .006 | 2.462 |

Variables not in the Equation

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | DEBTEQ | 2.670 | 1 | .102 |
| | Overall Statistics | | 2.670 | 1 | .102 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 2.739 | 1 | .098 |
| | Block | 2.739 | 1 | .098 |
| | Model | 2.739 | 1 | .098 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 51.365 | .059 | .084 |

**Classification Table[a]**

| Observed | | | Predicted DIV 0 | Predicted DIV 1 | Percentage Correct |
|---|---|---|---|---|---|
| Step 1 | DIV | 0 | 1 | 12 | 7.7 |
| | | 1 | 0 | 32 | 100.0 |
| | Overall Percentage | | | | 73.3 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | DEBTEQ | -.047 | .083 | .321 | 1 | .571 | .954 |
| | Constant | 1.057 | .369 | 8.217 | 1 | .004 | 2.877 |

a. Variable(s) entered on step 1: DEBTEQ.

## Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 45 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 45 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 45 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.



Dependent Variable Encoding

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| Observed | | | Predicted DIV 0 | Predicted DIV 1 | Percentage Correct |
|---|---|---|---|---|---|
| Step 0 | DIV | 0 | 0 | 13 | .0 |
| | | 1 | 0 | 32 | 100.0 |
| | Overall Percentage | | | | 71.1 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .901 | .329 | 7.501 | 1 | .006 | 2.462 |

**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | ROI | 7.007 | 1 | .008 |
| | Overall Statistics | | 7.007 | 1 | .008 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 12.246 | 1 | .000 |
| | Block | 12.246 | 1 | .000 |
| | Model | 12.246 | 1 | .000 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 41.858 | .238 | .341 |

**Classification Table[a]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | DIV | | Percentage Correct |
| | | | 0 | 1 | |
| Step 1 | DIV | 0 | 5 | 8 | 38.5 |
| | | 1 | 1 | 31 | 96.9 |
| | Overall Percentage | | | | 80.0 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | ROI | 13.721 | 5.679 | 5.838 | 1 | .016 | 909837.705 |
| | Constant | -.130 | .543 | .057 | 1 | .811 | .878 |

a. Variable(s) entered on step 1: ROI.

## Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 45 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 45 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 45 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | DIV | | Percentage Correct |
| | | | 0 | 1 | |
| Step 0 | DIV | 0 | 0 | 13 | .0 |
| | | 1 | 0 | 32 | 100.0 |
| | Overall Percentage | | | | 71.1 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .901 | .329 | 7.501 | 1 | .006 | 2.462 |



**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | ROE | 4.339 | 1 | .037 |
| | Overall Statistics | | 4.339 | 1 | .037 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 4.315 | 1 | .038 |
| | Block | 4.315 | 1 | .038 |
| | Model | 4.315 | 1 | .038 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 49.789 | .091 | .131 |

**Classification Table[a]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | DIV | | Percentage Correct |
| | | | 0 | 1 | |
| Step 1 | DIV | 0 | 2 | 11 | 15.4 |
| | | 1 | 0 | 32 | 100.0 |
| | Overall Percentage | | | | 75.6 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | ROE | .837 | .693 | 1.460 | 1 | .227 | 2.309 |
| | Constant | .924 | .353 | 6.871 | 1 | .009 | 2.521 |

a. Variable(s) entered on step 1: ROE.

## Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 45 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 45 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 45 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

Dependent Variable Encoding

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

Classification Table[a,b]

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | DIV | | Percentage Correct |
| | | | 0 | 1 | |
| Step 0 | DIV | 0 | 0 | 13 | .0 |
| | | 1 | 0 | 32 | 100.0 |
| | Overall Percentage | | | | 71.1 |

a. Constant is included in the model.

b. The cut value is .500

Variables in the Equation

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .901 | .329 | 7.501 | 1 | .006 | 2.462 |

Variables not in the Equation

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | TURNTA | 3.930 | 1 | .047 |
| | Overall Statistics | | 3.930 | 1 | .047 |

## Block 1: Method = Enter

Omnibus Tests of Model Coefficients

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 3.607 | 1 | .058 |
| | Block | 3.607 | 1 | .058 |
| | Model | 3.607 | 1 | .058 |

Model Summary

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 50.496 | .077 | .110 |



Classification Table[a]

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | DIV | | Percentage Correct |
| | | | 0 | 1 | |
| Step 1 | DIV | 0 | 2 | 11 | 15.4 |
| | | 1 | 2 | 30 | 93.8 |
| | Overall Percentage | | | | 71.1 |

a. The cut value is .500

Variables in the Equation

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | TURNTA | -.213 | .124 | 2.962 | 1 | .085 | .808 |
| | Constant | 1.360 | .431 | 9.937 | 1 | .002 | 3.896 |

a. Variable(s) entered on step 1: TURNTA.

## Logistic Regression

Case Processing Summary

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 45 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 45 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 45 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

Dependent Variable Encoding

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

Classification Table[a,b]

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | DIV | | Percentage Correct |
| | | | 0 | 1 | |
| Step 0 | DIV | 0 | 0 | 13 | .0 |
| | | 1 | 0 | 32 | 100.0 |
| | Overall Percentage | | | | 71.1 |

a. Constant is included in the model.

b. The cut value is .500

Variables in the Equation

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .901 | .329 | 7.501 | 1 | .006 | 2.462 |

**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | TURNEQ | 6.935 | 1 | .008 |
| | Overall Statistics | | 6.935 | 1 | .008 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 11.295 | 1 | .001 |
| | Block | 11.295 | 1 | .001 |
| | Model | 11.295 | 1 | .001 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 42.808 | .222 | .317 |

**Classification Table[a]**

| Observed | | Predicted | | |
|---|---|---|---|---|
| | | DIV | | Percentage Correct |
| | | 0 | 1 | |
| Step 1 DIV | 0 | 5 | 8 | 38.5 |
| | 1 | 2 | 30 | 93.8 |
| Overall Percentage | | | | 77.8 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | TURNEQ | -.260 | .115 | 5.121 | 1 | .024 | .771 |
| | Constant | 1.815 | .504 | 12.973 | 1 | .000 | 6.141 |

a. Variable(s) entered on step 1: TURNEQ.

## Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 45 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 45 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 45 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.



**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| Observed | | Predicted | | |
|---|---|---|---|---|
| | | DIV | | Percentage Correct |
| | | 0 | 1 | |
| Step 0 DIV | 0 | 0 | 13 | .0 |
| | 1 | 0 | 32 | 100.0 |
| Overall Percentage | | | | 71.1 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .901 | .329 | 7.501 | 1 | .006 | 2.462 |

**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | WCTA | 5.695 | 1 | .017 |
| | Overall Statistics | | 5.695 | 1 | .017 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 6.253 | 1 | .012 |
| | Block | 6.253 | 1 | .012 |
| | Model | 6.253 | 1 | .012 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 47.851 | .130 | .185 |

Classification Table[a]

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | DIV | | Percentage Correct |
| | | | 0 | 1 | |
| Step 1 | DIV | 0 | 3 | 10 | 23.1 |
| | | 1 | 0 | 32 | 100.0 |
| | Overall Percentage | | | | 77.8 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | WCTA | 2.476 | 1.351 | 3.358 | 1 | .067 | 11.888 |
| | Constant | .742 | .368 | 4.074 | 1 | .044 | 2.101 |

a. Variable(s) entered on step 1: WCTA.

## Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 45 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 45 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 45 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | DIV | | Percentage Correct |
| | | | 0 | 1 | |
| Step 0 | DIV | 0 | 0 | 13 | .0 |
| | | 1 | 0 | 32 | 100.0 |
| | Overall Percentage | | | | 71.1 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .901 | .329 | 7.501 | 1 | .006 | 2.462 |



**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | INCEAT | 2.317 | 1 | .128 |
| | Overall Statistics | | 2.317 | 1 | .128 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 6.166 | 1 | .013 |
| | Block | 6.166 | 1 | .013 |
| | Model | 6.166 | 1 | .013 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 47.938 | .128 | .183 |

**Classification Table[a]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | DIV | | Percentage Correct |
| | | | 0 | 1 | |
| Step 1 | DIV | 0 | 3 | 10 | 23.1 |
| | | 1 | 1 | 31 | 96.9 |
| | Overall Percentage | | | | 75.6 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | INCEAT | .394 | .219 | 3.250 | 1 | .071 | 1.483 |
| | Constant | .695 | .351 | 3.924 | 1 | .048 | 2.004 |

a. Variable(s) entered on step 1: INCEAT.

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 47 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 47 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 47 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| Observed | | | Predicted Y | | Percentage Correct |
|---|---|---|---|---|---|
| | | | 0 | 1 | |
| Step 0 | Y | 0 | 0 | 15 | .0 |
| | | 1 | 0 | 32 | 100.0 |
| Overall Percentage | | | | | 68.1 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .758 | .313 | 5.863 | 1 | .015 | 2.133 |

**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | CR | .362 | 1 | .548 |
| | Overall Statistics | | .362 | 1 | .548 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | .394 | 1 | .530 |
| | Block | .394 | 1 | .530 |
| | Model | .394 | 1 | .530 |



**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 58.472 | .008 | .012 |

**Classification Table[a]**

| Observed | | | Predicted Y | | Percentage Correct |
|---|---|---|---|---|---|
| | | | 0 | 1 | |
| Step 1 | Y | 0 | 0 | 15 | .0 |
| | | 1 | 0 | 32 | 100.0 |
| Overall Percentage | | | | | 68.1 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | CR | .102 | .172 | .350 | 1 | .554 | 1.107 |
| | Constant | .562 | .444 | 1.604 | 1 | .205 | 1.755 |

a. Variable(s) entered on step 1: CR.

## Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 47 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 47 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 47 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| Observed | | | Predicted Y | | Percentage Correct |
|---|---|---|---|---|---|
| | | | 0 | 1 | |
| Step 0 | Y | 0 | 0 | 15 | .0 |
| | | 1 | 0 | 32 | 100.0 |
| Overall Percentage | | | | | 68.1 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .758 | .313 | 5.863 | 1 | .015 | 2.133 |

**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | PE | 17.474 | 1 | .000 |
| | Overall Statistics | | 17.474 | 1 | .000 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 27.441 | 1 | .000 |
| | Block | 27.441 | 1 | .000 |
| | Model | 27.441 | 1 | .000 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 31.424 | .442 | .619 |

**Classification Table[a]**

| Observed | | Predicted | | |
|---|---|---|---|---|
| | | Y | | Percentage Correct |
| | | 0 | 1 | |
| Step 1 Y | 0 | 11 | 4 | 73.3 |
| | 1 | 1 | 31 | 96.9 |
| Overall Percentage | | | | 89.4 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | PE | .150 | .048 | 9.820 | 1 | .002 | 1.162 |
| | Constant | -.317 | .583 | .297 | 1 | .586 | .728 |

a. Variable(s) entered on step 1: PE.

## Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 47 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 47 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 47 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.



**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| Observed | | Predicted | | |
|---|---|---|---|---|
| | | Y | | Percentage Correct |
| | | 0 | 1 | |
| Step 0 Y | 0 | 0 | 15 | .0 |
| | 1 | 0 | 32 | 100.0 |
| Overall Percentage | | | | 68.1 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .758 | .313 | 5.863 | 1 | .015 | 2.133 |

**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | DIVYD | 16.054 | 1 | .000 |
| | Overall Statistics | | 16.054 | 1 | .000 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 51.384 | 1 | .000 |
| | Block | 51.384 | 1 | .000 |
| | Model | 51.384 | 1 | .000 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 7.481 | .665 | .931 |

Classification Table[a]

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 1 | Y | 0 | 15 | 0 | 100.0 |
| | | 1 | 1 | 31 | 96.9 |
| Overall Percentage | | | | | 97.9 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | DIVYD | 17.581 | 1569.298 | .000 | 1 | .991 | 43184993.768 |
| | Constant | -2.708 | 1.033 | 6.875 | 1 | .009 | .067 |

a. Variable(s) entered on step 1: DIVYD.

## Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 47 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 47 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 47 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 0 | Y | 0 | 0 | 15 | .0 |
| | | 1 | 0 | 32 | 100.0 |
| Overall Percentage | | | | | 68.1 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .758 | .313 | 5.863 | 1 | .015 | 2.133 |



**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | DIVPAY | 10.707 | 1 | .001 |
| | Overall Statistics | | 10.707 | 1 | .001 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 51.384 | 1 | .000 |
| | Block | 51.384 | 1 | .000 |
| | Model | 51.384 | 1 | .000 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 7.481 | .665 | .931 |

**Classification Table[a]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 1 | Y | 0 | 15 | 0 | 100.0 |
| | | 1 | 1 | 31 | 96.9 |
| Overall Percentage | | | | | 97.9 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | DIVPAY | 2.154 | 104.617 | .000 | 1 | .984 | 8.615 |
| | Constant | -2.708 | 1.033 | 6.875 | 1 | .009 | .067 |

a. Variable(s) entered on step 1: DIVPAY.

## Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 47 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 47 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 47 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 0 | Y | 0 | 0 | 15 | .0 |
| | | 1 | 0 | 32 | 100.0 |
| Overall Percentage | | | | | 68.1 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .758 | .313 | 5.863 | 1 | .015 | 2.133 |

**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | PRICEBK | .772 | 1 | .380 |
| | Overall Statistics | | .772 | 1 | .380 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | .855 | 1 | .355 |
| | Block | .855 | 1 | .355 |
| | Model | .855 | 1 | .355 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 58.010 | .018 | .025 |



**Classification Table[a]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 1 | Y | 0 | 0 | 15 | .0 |
| | | 1 | 0 | 32 | 100.0 |
| Overall Percentage | | | | | 68.1 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | PRICEBK | .170 | .199 | .734 | 1 | .392 | 1.186 |
| | Constant | .488 | .429 | 1.294 | 1 | .255 | 1.628 |

a. Variable(s) entered on step 1: PRICEBK.

## Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 47 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 47 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 47 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 0 | Y | 0 | 0 | 15 | .0 |
| | | 1 | 0 | 32 | 100.0 |
| Overall Percentage | | | | | 68.1 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .758 | .313 | 5.863 | 1 | .015 | 2.133 |

Variables not in the Equation

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | DEBTEQ | 3.786 | 1 | .052 |
| | Overall Statistics | | 3.786 | 1 | .052 |

## Block 1: Method = Enter

Omnibus Tests of Model Coefficients

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 3.915 | 1 | .048 |
| | Block | 3.915 | 1 | .048 |
| | Model | 3.915 | 1 | .048 |

Model Summary

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 54.950 | .080 | .112 |

Classification Table[a]

| Observed | | Predicted Y 0 | Predicted Y 1 | Percentage Correct |
|---|---|---|---|---|
| Step 1 Y | 0 | 2 | 13 | 13.3 |
| | 1 | 0 | 32 | 100.0 |
| Overall Percentage | | | | 72.3 |

a. The cut value is .500

Variables in the Equation

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | DEBTEQ | -.279 | .232 | 1.452 | 1 | .228 | .756 |
| | Constant | .986 | .347 | 8.073 | 1 | .004 | 2.680 |

a. Variable(s) entered on step 1: DEBTEQ.

## Logistic Regression

Case Processing Summary

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 47 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 47 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 47 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.



Dependent Variable Encoding

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

Classification Table[a,b]

| Observed | | Predicted Y 0 | Predicted Y 1 | Percentage Correct |
|---|---|---|---|---|
| Step 0 Y | 0 | 0 | 15 | .0 |
| | 1 | 0 | 32 | 100.0 |
| Overall Percentage | | | | 68.1 |

a. Constant is included in the model.

b. The cut value is .500

Variables in the Equation

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .758 | .313 | 5.863 | 1 | .015 | 2.133 |

Variables not in the Equation

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | ROI | 7.425 | 1 | .006 |
| | Overall Statistics | | 7.425 | 1 | .006 |

## Block 1: Method = Enter

Omnibus Tests of Model Coefficients

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 8.506 | 1 | .004 |
| | Block | 8.506 | 1 | .004 |
| | Model | 8.506 | 1 | .004 |

Model Summary

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 50.359 | .166 | .232 |

**Classification Table[a]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 1 | Y | 0 | 3 | 12 | 20.0 |
| | | 1 | 1 | 31 | 96.9 |
| | Overall Percentage | | | | 72.3 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | ROI | 8.713 | 3.832 | 5.169 | 1 | .023 | 6080.855 |
| | Constant | .353 | .378 | .875 | 1 | .349 | 1.424 |

a. Variable(s) entered on step 1: ROI.

# Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 47 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 47 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 47 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 0 | Y | 0 | 0 | 15 | .0 |
| | | 1 | 0 | 32 | 100.0 |
| | Overall Percentage | | | | 68.1 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .758 | .313 | 5.863 | 1 | .015 | 2.133 |



**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | ROE | 5.150 | 1 | .023 |
| | Overall Statistics | | 5.150 | 1 | .023 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 7.956 | 1 | .005 |
| | Block | 7.956 | 1 | .005 |
| | Model | 7.956 | 1 | .005 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 50.910 | .156 | .218 |

**Classification Table[a]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 1 | Y | 0 | 3 | 12 | 20.0 |
| | | 1 | 1 | 31 | 96.9 |
| | Overall Percentage | | | | 72.3 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | ROE | 3.715 | 2.320 | 2.566 | 1 | .109 | 41.075 |
| | Constant | .675 | .368 | 3.358 | 1 | .067 | 1.965 |

a. Variable(s) entered on step 1: ROE.

# Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 47 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 47 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 47 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

Dependent Variable Encoding

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 0 | Y | 0 | 0 | 15 | .0 |
| | | 1 | 0 | 32 | 100.0 |
| | Overall Percentage | | | | 68.1 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .758 | .313 | 5.863 | 1 | .015 | 2.133 |

**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | TURNTA | 5.169 | 1 | .023 |
| | Overall Statistics | | 5.169 | 1 | .023 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 6.049 | 1 | .014 |
| | Block | 6.049 | 1 | .014 |
| | Model | 6.049 | 1 | .014 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 52.816 | .121 | .169 |



**Classification Table[a]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 1 | Y | 0 | 4 | 11 | 26.7 |
| | | 1 | 2 | 30 | 93.8 |
| | Overall Percentage | | | | 72.3 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1 | TURNTA | -.274 | .159 | 2.971 | 1 | .085 | .760 |
| | Constant | 1.309 | .429 | 9.323 | 1 | .002 | 3.703 |

a. Variable(s) entered on step 1: TURNTA.

## Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 47 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 47 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 47 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

Dependent Variable Encoding

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 0 | Y | 0 | 0 | 15 | .0 |
| | | 1 | 0 | 32 | 100.0 |
| | Overall Percentage | | | | 68.1 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .758 | .313 | 5.863 | 1 | .015 | 2.133 |

**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | TURNEQ | 2.829 | 1 | .093 |
| | Overall Statistics | | 2.829 | 1 | .093 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 9.730 | 1 | .002 |
| | Block | 9.730 | 1 | .002 |
| | Model | 9.730 | 1 | .002 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 49.135 | .187 | .262 |

**Classification Table[a]**

| Observed | | Predicted | | |
|---|---|---|---|---|
| | | Y | | Percentage Correct |
| | | 0 | 1 | |
| Step 1 Y | 0 | 5 | 10 | 33.3 |
| | 1 | 1 | 31 | 96.9 |
| Overall Percentage | | | | 76.6 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | TURNEQ | -.261 | .127 | 4.247 | 1 | .039 | .770 |
| | Constant | 1.517 | .453 | 11.189 | 1 | .001 | 4.557 |

a. Variable(s) entered on step 1: TURNEQ.

# Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 47 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 47 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 47 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.



**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| Observed | | Predicted | | |
|---|---|---|---|---|
| | | Y | | Percentage Correct |
| | | 0 | 1 | |
| Step 0 Y | 0 | 0 | 15 | .0 |
| | 1 | 0 | 32 | 100.0 |
| Overall Percentage | | | | 68.1 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .758 | .313 | 5.863 | 1 | .015 | 2.133 |

**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | WCTA | 1.760 | 1 | .185 |
| | Overall Statistics | | 1.760 | 1 | .185 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 1.648 | 1 | .199 |
| | Block | 1.648 | 1 | .199 |
| | Model | 1.648 | 1 | .199 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 57.218 | .034 | .048 |

Classification Table[a]

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 1 | Y | 0 | 2 | 13 | 13.3 |
| | | 1 | 2 | 30 | 93.8 |
| | Overall Percentage | | | | 68.1 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | WCTA | .159 | .125 | 1.612 | 1 | .204 | 1.172 |
| | Constant | .910 | .343 | 7.052 | 1 | .008 | 2.483 |

a. Variable(s) entered on step 1: WCTA.

## Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 47 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 47 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 47 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 0 | Y | 0 | 0 | 15 | .0 |
| | | 1 | 0 | 32 | 100.0 |
| | Overall Percentage | | | | 68.1 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .758 | .313 | 5.863 | 1 | .015 | 2.133 |



**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | INCEAT | .677 | 1 | .411 |
| | Overall Statistics | | .677 | 1 | .411 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | .633 | 1 | .426 |
| | Block | .633 | 1 | .426 |
| | Model | .633 | 1 | .426 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 58.232 | .013 | .019 |

**Classification Table[a]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 1 | Y | 0 | 0 | 15 | .0 |
| | | 1 | 1 | 31 | 96.9 |
| | Overall Percentage | | | | 66.0 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | INCEAT | .060 | .077 | .597 | 1 | .440 | 1.061 |
| | Constant | .787 | .318 | 6.139 | 1 | .013 | 2.196 |

a. Variable(s) entered on step 1: INCEAT.

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 47 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 47 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 47 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| Observed | | | Predicted Y | | Percentage Correct |
|---|---|---|---|---|---|
| | | | 0 | 1 | |
| Step 0 | Y | 0 | 0 | 14 | .0 |
| | | 1 | 0 | 33 | 100.0 |
| Overall Percentage | | | | | 70.2 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .857 | .319 | 7.227 | 1 | .007 | 2.357 |

**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | CR | .853 | 1 | .356 |
| | Overall Statistics | | .853 | 1 | .356 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 1.154 | 1 | .283 |
| | Block | 1.154 | 1 | .283 |
| | Model | 1.154 | 1 | .283 |



**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 56.096 | .024 | .034 |

**Classification Table[a]**

| Observed | | | Predicted Y | | Percentage Correct |
|---|---|---|---|---|---|
| | | | 0 | 1 | |
| Step 1 | Y | 0 | 0 | 14 | .0 |
| | | 1 | 0 | 33 | 100.0 |
| Overall Percentage | | | | | 70.2 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | CR | .173 | .201 | .737 | 1 | .390 | 1.189 |
| | Constant | .540 | .458 | 1.391 | 1 | .238 | 1.716 |

a. Variable(s) entered on step 1: CR.

## Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 47 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 47 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 47 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| Observed | | | Predicted Y | | Percentage Correct |
|---|---|---|---|---|---|
| | | | 0 | 1 | |
| Step 0 | Y | 0 | 0 | 14 | .0 |
| | | 1 | 0 | 33 | 100.0 |
| Overall Percentage | | | | | 70.2 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .857 | .319 | 7.227 | 1 | .007 | 2.357 |

**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | PE | .982 | 1 | .322 |
| | Overall Statistics | | .982 | 1 | .322 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 1.061 | 1 | .303 |
| | Block | 1.061 | 1 | .303 |
| | Model | 1.061 | 1 | .303 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 56.189 | .022 | .032 |

**Classification Table[a]**

| Observed | | Predicted | | |
|---|---|---|---|---|
| | | Y | | Percentage Correct |
| | | 0 | 1 | |
| Step 1 Y | 0 | 0 | 14 | .0 |
| | 1 | 1 | 32 | 97.0 |
| Overall Percentage | | | | 68.1 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | PE | .014 | .015 | .939 | 1 | .333 | 1.014 |
| | Constant | .783 | .327 | 5.726 | 1 | .017 | 2.188 |

a. Variable(s) entered on step 1: PE.

## Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 47 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 47 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 47 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.



**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| Observed | | Predicted | | |
|---|---|---|---|---|
| | | Y | | Percentage Correct |
| | | 0 | 1 | |
| Step 0 Y | 0 | 0 | 14 | .0 |
| | 1 | 0 | 33 | 100.0 |
| Overall Percentage | | | | 70.2 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .857 | .319 | 7.227 | 1 | .007 | 2.357 |

**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | DIVYD | 15.606 | 1 | .000 |
| | Overall Statistics | | 15.606 | 1 | .000 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 22.987 | 1 | .000 |
| | Block | 22.987 | 1 | .000 |
| | Model | 22.987 | 1 | .000 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 34.264 | .387 | .549 |

Classification Table[a]

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 1 | Y | 0 | 13 | 1 | 92.9 |
| | | 1 | 4 | 29 | 87.9 |
| | Overall Percentage | | | | 89.4 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | DIVYD | .510 | .166 | 9.423 | 1 | .002 | 1.666 |
| | Constant | -.812 | .511 | 2.531 | 1 | .112 | .444 |

a. Variable(s) entered on step 1: DIVYD.

## Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 47 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 47 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 47 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 0 | Y | 0 | 0 | 14 | .0 |
| | | 1 | 0 | 33 | 100.0 |
| | Overall Percentage | | | | 70.2 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .857 | .319 | 7.227 | 1 | .007 | 2.357 |



**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | DIVPAY | .645 | 1 | .358 |
| | Overall Statistics | | .645 | 1 | .358 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 2.225 | 1 | .136 |
| | Block | 2.225 | 1 | .136 |
| | Model | 2.225 | 1 | .136 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 55.026 | .046 | .066 |

**Classification Table[a]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 1 | Y | 0 | 0 | 14 | .0 |
| | | 1 | 2 | 31 | 93.9 |
| | Overall Percentage | | | | 66.0 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | DIVPAY | .006 | .005 | 1.402 | 1 | .236 | 1.006 |
| | Constant | .659 | .353 | 3.487 | 1 | .062 | 1.932 |

a. Variable(s) entered on step 1: DIVPAY.

## Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 47 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 47 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 47 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 0 | Y | 0 | 0 | 14 | .0 |
| | | 1 | 0 | 33 | 100.0 |
| | Overall Percentage | | | | 70.2 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .857 | .319 | 7.227 | 1 | .007 | 2.357 |

**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | PRICEBK | 3.909 | 1 | .048 |
| | Overall Statistics | | 3.909 | 1 | .048 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 10.814 | 1 | .001 |
| | Block | 10.814 | 1 | .001 |
| | Model | 10.814 | 1 | .001 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 46.437 | .206 | .292 |



**Classification Table[a]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 1 | Y | 0 | 7 | 7 | 50.0 |
| | | 1 | 6 | 27 | 81.8 |
| | Overall Percentage | | | | 72.3 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | PRICEBK | 3.447 | 1.452 | 5.634 | 1 | .018 | 31.403 |
| | Constant | -.796 | .660 | 1.455 | 1 | .228 | .451 |

a. Variable(s) entered on step 1: PRICEBK.

## Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 47 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 47 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 47 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 0 | Y | 0 | 0 | 14 | .0 |
| | | 1 | 0 | 33 | 100.0 |
| | Overall Percentage | | | | 70.2 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .857 | .319 | 7.227 | 1 | .007 | 2.357 |

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | DEBTEQ | .033 | 1 | .856 |
| | Overall Statistics | | .033 | 1 | .856 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | .032 | 1 | .857 |
| | Block | .032 | 1 | .857 |
| | Model | .032 | 1 | .857 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 57.218 | .001 | .001 |

**Classification Table[a]**

| Observed | | Predicted Y = 0 | Predicted Y = 1 | Percentage Correct |
|---|---|---|---|---|
| Step 1 Y | 0 | 0 | 14 | .0 |
| | 1 | 0 | 33 | 100.0 |
| Overall Percentage | | | | 70.2 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | DEBTEQ | -.049 | .271 | .033 | 1 | .856 | .952 |
| | Constant | .886 | .356 | 6.180 | 1 | .013 | 2.425 |

a. Variable(s) entered on step 1: DEBTEQ.

## Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 47 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 47 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 47 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.



**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| Observed | | Predicted Y = 0 | Predicted Y = 1 | Percentage Correct |
|---|---|---|---|---|
| Step 0 Y | 0 | 0 | 14 | .0 |
| | 1 | 0 | 33 | 100.0 |
| Overall Percentage | | | | 70.2 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .857 | .319 | 7.227 | 1 | .007 | 2.357 |

**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | ROI | 6.319 | 1 | .012 |
| | Overall Statistics | | 6.319 | 1 | .012 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 6.788 | 1 | .009 |
| | Block | 6.788 | 1 | .009 |
| | Model | 6.788 | 1 | .009 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 50.463 | .134 | .191 |

**Classification Table[a]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 1 | Y | 0 | 3 | 11 | 21.4 |
| | | 1 | 0 | 33 | 100.0 |
| | Overall Percentage | | | | 76.6 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | ROI | 8.050 | 4.453 | 3.268 | 1 | .071 | 3133.602 |
| | Constant | .511 | .402 | 1.616 | 1 | .204 | 1.667 |

a. Variable(s) entered on step 1: ROI.

## Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 47 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 47 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 47 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 0 | Y | 0 | 0 | 14 | .0 |
| | | 1 | 0 | 33 | 100.0 |
| | Overall Percentage | | | | 70.2 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .857 | .319 | 7.227 | 1 | .007 | 2.357 |



**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | ROE | 10.329 | 1 | .001 |
| | Overall Statistics | | 10.329 | 1 | .001 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 15.754 | 1 | .000 |
| | Block | 15.754 | 1 | .000 |
| | Model | 15.754 | 1 | .000 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 41.497 | .285 | .404 |

**Classification Table[a]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 1 | Y | 0 | 5 | 9 | 35.7 |
| | | 1 | 2 | 31 | 93.9 |
| | Overall Percentage | | | | 76.6 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | ROE | 17.349 | 7.559 | 5.267 | 1 | .022 | 34249520.776 |
| | Constant | -.006 | .536 | .000 | 1 | .991 | .994 |

a. Variable(s) entered on step 1: ROE.

## Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 47 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 47 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 47 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

Dependent Variable Encoding

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

Classification Table[a,b]

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 0 | Y | 0 | 0 | 14 | .0 |
| | | 1 | 0 | 33 | 100.0 |
| Overall Percentage | | | | | 70.2 |

a. Constant is included in the model.

b. The cut value is .500

Variables in the Equation

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .857 | .319 | 7.227 | 1 | .007 | 2.357 |

Variables not in the Equation

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | TURNTA | 3.706 | 1 | .054 |
| | Overall Statistics | | 3.706 | 1 | .054 |

## Block 1: Method = Enter

Omnibus Tests of Model Coefficients

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 3.609 | 1 | .057 |
| | Block | 3.609 | 1 | .057 |
| | Model | 3.609 | 1 | .057 |

Model Summary

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 53.642 | .074 | .105 |



Classification Table[a]

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 1 | Y | 0 | 2 | 12 | 14.3 |
| | | 1 | 1 | 32 | 97.0 |
| Overall Percentage | | | | | 72.3 |

a. The cut value is .500

Variables in the Equation

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | TURNTA | -.161 | .111 | 2.089 | 1 | .148 | .852 |
| | Constant | 1.234 | .403 | 9.358 | 1 | .002 | 3.434 |

a. Variable(s) entered on step 1: TURNTA.

# Logistic Regression

Case Processing Summary

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 47 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 47 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 47 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

Dependent Variable Encoding

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

Classification Table[a,b]

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 0 | Y | 0 | 0 | 14 | .0 |
| | | 1 | 0 | 33 | 100.0 |
| Overall Percentage | | | | | 70.2 |

a. Constant is included in the model.

b. The cut value is .500

Variables in the Equation

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .857 | .319 | 7.227 | 1 | .007 | 2.357 |

**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | TURNEQ | 1.014 | 1 | .314 |
| | Overall Statistics | | 1.014 | 1 | .314 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | .917 | 1 | .338 |
| | Block | .917 | 1 | .338 |
| | Model | .917 | 1 | .338 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 56.334 | .019 | .027 |

**Classification Table[a]**

| | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | |
| | Observed | | 0 | 1 | Percentage Correct |
| Step 1 | Y | 0 | 1 | 13 | 7.1 |
| | | 1 | 1 | 32 | 97.0 |
| | Overall Percentage | | | | 70.2 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | TURNEQ | -.032 | .034 | .889 | 1 | .346 | .969 |
| | Constant | .993 | .354 | 7.885 | 1 | .005 | 2.699 |

a. Variable(s) entered on step 1: TURNEQ.

## Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 47 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 47 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 47 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.



**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | |
| | Observed | | 0 | 1 | Percentage Correct |
| Step 0 | Y | 0 | 0 | 14 | .0 |
| | | 1 | 0 | 33 | 100.0 |
| | Overall Percentage | | | | 70.2 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .857 | .319 | 7.227 | 1 | .007 | 2.357 |

**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | WCTA | .062 | 1 | .804 |
| | Overall Statistics | | .062 | 1 | .804 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | .063 | 1 | .801 |
| | Block | .063 | 1 | .801 |
| | Model | .063 | 1 | .801 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 57.188 | .001 | .002 |

Classification Table[a]

| Observed | | | Predicted Y | | Percentage Correct |
|---|---|---|---|---|---|
| | | | 0 | 1 | |
| Step 1 | Y | 0 | 0 | 14 | .0 |
| | | 1 | 0 | 33 | 100.0 |
| Overall Percentage | | | | | 70.2 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | WCTA | -.034 | .136 | .061 | 1 | .805 | .967 |
| | Constant | .836 | .329 | 6.451 | 1 | .011 | 2.307 |

a. Variable(s) entered on step 1: WCTA.

## Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 47 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 47 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 47 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| Observed | | | Predicted Y | | Percentage Correct |
|---|---|---|---|---|---|
| | | | 0 | 1 | |
| Step 0 | Y | 0 | 0 | 14 | .0 |
| | | 1 | 0 | 33 | 100.0 |
| Overall Percentage | | | | | 70.2 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .857 | .319 | 7.227 | 1 | .007 | 2.357 |



**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | INCEAT | .048 | 1 | .827 |
| | Overall Statistics | | .048 | 1 | .827 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | .048 | 1 | .827 |
| | Block | .048 | 1 | .827 |
| | Model | .048 | 1 | .827 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 57.203 | .001 | .001 |

**Classification Table[a]**

| Observed | | | Predicted Y | | Percentage Correct |
|---|---|---|---|---|---|
| | | | 0 | 1 | |
| Step 1 | Y | 0 | 0 | 14 | .0 |
| | | 1 | 0 | 33 | 100.0 |
| Overall Percentage | | | | | 70.2 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | INCEAT | .019 | .086 | .047 | 1 | .827 | 1.019 |
| | Constant | .852 | .320 | 7.112 | 1 | .008 | 2.345 |

a. Variable(s) entered on step 1: INCEAT.

Case Processing Summary

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 47 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 47 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 47 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

Dependent Variable Encoding

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

Classification Table[a,b]

| | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | |
| Observed | | | 0 | 1 | Percentage Correct |
| Step 0 | Y | 0 | 0 | 11 | .0 |
| | | 1 | 0 | 36 | 100.0 |
| Overall Percentage | | | | | 76.6 |

a. Constant is included in the model.

b. The cut value is .500

Variables in the Equation

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | 1.186 | .345 | 11.844 | 1 | .001 | 3.273 |

Variables not in the Equation

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | CR | 2.483 | 1 | .115 |
| | Overall Statistics | | 2.483 | 1 | .115 |

## Block 1: Method = Enter

Omnibus Tests of Model Coefficients

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 6.372 | 1 | .012 |
| | Block | 6.372 | 1 | .012 |
| | Model | 6.372 | 1 | .012 |



Model Summary

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 44.775 | .127 | .191 |

Classification Table[a]

| | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | |
| Observed | | | 0 | 1 | Percentage Correct |
| Step 1 | Y | 0 | 0 | 11 | .0 |
| | | 1 | 0 | 36 | 100.0 |
| Overall Percentage | | | | | 76.6 |

a. The cut value is .500

Variables in the Equation

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | CR | .961 | .512 | 3.525 | 1 | .060 | 2.613 |
| | Constant | -.017 | .625 | .001 | 1 | .979 | .984 |

a. Variable(s) entered on step 1: CR.

# Logistic Regression

Case Processing Summary

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 47 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 47 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 47 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

Dependent Variable Encoding

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

Classification Table[a,b]

| | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | |
| Observed | | | 0 | 1 | Percentage Correct |
| Step 0 | Y | 0 | 0 | 11 | .0 |
| | | 1 | 0 | 36 | 100.0 |
| Overall Percentage | | | | | 76.6 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | 1.186 | .345 | 11.844 | 1 | .001 | 3.273 |

**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | PE | 3.197 | 1 | .074 |
| | Overall Statistics | | 3.197 | 1 | .074 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 2.759 | 1 | .097 |
| | Block | 2.759 | 1 | .097 |
| | Model | 2.759 | 1 | .097 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 48.388 | .057 | .086 |

**Classification Table[a]**

| Observed | | Predicted Y = 0 | Predicted Y = 1 | Percentage Correct |
|---|---|---|---|---|
| Step 1 Y | 0 | 1 | 10 | 9.1 |
| | 1 | 0 | 36 | 100.0 |
| Overall Percentage | | | | 78.7 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | PE | -.001 | .001 | .522 | 1 | .470 | .999 |
| | Constant | 1.290 | .358 | 12.952 | 1 | .000 | 3.632 |

a. Variable(s) entered on step 1: PE.

## Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 47 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 47 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 47 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.



**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| Observed | | Predicted Y = 0 | Predicted Y = 1 | Percentage Correct |
|---|---|---|---|---|
| Step 0 Y | 0 | 0 | 11 | .0 |
| | 1 | 0 | 36 | 100.0 |
| Overall Percentage | | | | 76.6 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | 1.186 | .345 | 11.844 | 1 | .001 | 3.273 |

**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | DIVYD | 15.516 | 1 | .000 |
| | Overall Statistics | | 15.516 | 1 | .000 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 31.272 | 1 | .000 |
| | Block | 31.272 | 1 | .000 |
| | Model | 31.272 | 1 | .000 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 19.875 | .486 | .733 |

**Classification Table[a]**

| Observed | | Predicted Y 0 | Predicted Y 1 | Percentage Correct |
|---|---|---|---|---|
| Step 1 Y | 0 | 11 | 0 | 100.0 |
| | 1 | 5 | 31 | 86.1 |
| Overall Percentage | | | | 89.4 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | DIVYD | 8.881 | 1062.841 | .000 | 1 | .993 | 7191.693 |
| | Constant | -.788 | .539 | 2.137 | 1 | .144 | .455 |

a. Variable(s) entered on step 1: DIVYD.

## Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 47 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 47 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 47 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| Observed | | Predicted Y 0 | Predicted Y 1 | Percentage Correct |
|---|---|---|---|---|
| Step 0 Y | 0 | 0 | 11 | .0 |
| | 1 | 0 | 36 | 100.0 |
| Overall Percentage | | | | 76.6 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | 1.186 | .345 | 11.844 | 1 | .001 | 3.273 |



**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | DIVPAY | 5.670 | 1 | .015 |
| | Overall Statistics | | 5.670 | 1 | .015 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 10.913 | 1 | .001 |
| | Block | 10.913 | 1 | .001 |
| | Model | 10.913 | 1 | .001 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 40.234 | .207 | .312 |

**Classification Table[a]**

| Observed | | Predicted Y 0 | Predicted Y 1 | Percentage Correct |
|---|---|---|---|---|
| Step 1 Y | 0 | 0 | 11 | .0 |
| | 1 | 1 | 35 | 97.2 |
| Overall Percentage | | | | 74.5 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | DIVPAY | .030 | .013 | 5.105 | 1 | .024 | 1.031 |
| | Constant | .321 | .465 | .477 | 1 | .490 | 1.378 |

a. Variable(s) entered on step 1: DIVPAY.

## Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 47 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 47 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 47 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 0 | Y | 0 | 0 | 11 | .0 |
| | | 1 | 0 | 36 | 100.0 |
| | Overall Percentage | | | | 76.6 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | 1.186 | .345 | 11.844 | 1 | .001 | 3.273 |

**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | PRICEBK | 1.711 | 1 | .191 |
| | Overall Statistics | | 1.711 | 1 | .191 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 4.713 | 1 | .030 |
| | Block | 4.713 | 1 | .030 |
| | Model | 4.713 | 1 | .030 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 46.433 | .095 | .144 |



**Classification Table[a]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 1 | Y | 0 | 0 | 11 | .0 |
| | | 1 | 0 | 36 | 100.0 |
| | Overall Percentage | | | | 76.6 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | PRICEBK | 2.298 | 1.365 | 2.835 | 1 | .092 | 9.958 |
| | Constant | .016 | .686 | .001 | 1 | .981 | 1.016 |

a. Variable(s) entered on step 1: PRICEBK.

## Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 47 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 47 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 47 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 0 | Y | 0 | 0 | 11 | .0 |
| | | 1 | 0 | 36 | 100.0 |
| | Overall Percentage | | | | 76.6 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | 1.186 | .345 | 11.844 | 1 | .001 | 3.273 |

Variables not in the Equation

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | DEBTEQ | 5.226 | 1 | .022 |
| | Overall Statistics | | 5.226 | 1 | .022 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 4.423 | 1 | .035 |
| | Block | 4.423 | 1 | .035 |
| | Model | 4.423 | 1 | .035 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 46.724 | .090 | .135 |

**Classification Table[a]**

| Observed | | Predicted Y = 0 | Predicted Y = 1 | Percentage Correct |
|---|---|---|---|---|
| Step 1 Y | 0 | 2 | 9 | 18.2 |
| | 1 | 1 | 35 | 97.2 |
| Overall Percentage | | | | 78.7 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | DEBTEQ | -.622 | .360 | 2.989 | 1 | .084 | .537 |
| | Constant | 1.496 | .397 | 14.203 | 1 | .000 | 4.466 |

a. Variable(s) entered on step 1: DEBTEQ.

## Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 47 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 47 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 47 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.



**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| Observed | | Predicted Y = 0 | Predicted Y = 1 | Percentage Correct |
|---|---|---|---|---|
| Step 0 Y | 0 | 0 | 11 | .0 |
| | 1 | 0 | 36 | 100.0 |
| Overall Percentage | | | | 76.6 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | 1.186 | .345 | 11.844 | 1 | .001 | 3.273 |

**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | ROI | 4.711 | 1 | .030 |
| | Overall Statistics | | 4.711 | 1 | .030 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 5.656 | 1 | .017 |
| | Block | 5.656 | 1 | .017 |
| | Model | 5.656 | 1 | .017 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 45.490 | .113 | .171 |

**Classification Table[a]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 1 | Y | 0 | 2 | 9 | 18.2 |
| | | 1 | 0 | 36 | 100.0 |
| | Overall Percentage | | | | 80.9 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | ROI | 5.243 | 2.968 | 3.119 | 1 | .077 | 189.152 |
| | Constant | 1.072 | .374 | 8.203 | 1 | .004 | 2.922 |

a. Variable(s) entered on step 1: ROI.

## Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 47 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 47 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 47 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 0 | Y | 0 | 0 | 11 | .0 |
| | | 1 | 0 | 36 | 100.0 |
| | Overall Percentage | | | | 76.6 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | 1.186 | .345 | 11.844 | 1 | .001 | 3.273 |



**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | ROE | 1.054 | 1 | .305 |
| | Overall Statistics | | 1.054 | 1 | .305 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | .931 | 1 | .335 |
| | Block | .931 | 1 | .335 |
| | Model | .931 | 1 | .335 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 50.216 | .020 | .030 |

**Classification Table[a]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 1 | Y | 0 | 1 | 10 | 9.1 |
| | | 1 | 0 | 36 | 100.0 |
| | Overall Percentage | | | | 78.7 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | ROE | .528 | .541 | .953 | 1 | .329 | 1.695 |
| | Constant | 1.224 | .353 | 12.059 | 1 | .001 | 3.402 |

a. Variable(s) entered on step 1: ROE.

## Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 47 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 47 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 47 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

Dependent Variable Encoding

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 0 | Y | 0 | 0 | 11 | .0 |
| | | 1 | 0 | 36 | 100.0 |
| | Overall Percentage | | | | 76.6 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | 1.186 | .345 | 11.844 | 1 | .001 | 3.273 |

**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | TURNTA | 1.295 | 1 | .255 |
| | Overall Statistics | | 1.295 | 1 | .255 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 1.120 | 1 | .290 |
| | Block | 1.120 | 1 | .290 |
| | Model | 1.120 | 1 | .290 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 50.027 | .024 | .036 |



Classification Table[a]

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 1 | Y | 0 | 1 | 10 | 9.1 |
| | | 1 | 1 | 35 | 97.2 |
| | Overall Percentage | | | | 76.6 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | TURNTA | -.083 | .077 | 1.153 | 1 | .283 | .921 |
| | Constant | 1.390 | .405 | 11.802 | 1 | .001 | 4.015 |

a. Variable(s) entered on step 1: TURNTA.

## Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 47 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 47 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 47 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 0 | Y | 0 | 0 | 11 | .0 |
| | | 1 | 0 | 36 | 100.0 |
| | Overall Percentage | | | | 76.6 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | 1.186 | .345 | 11.844 | 1 | .001 | 3.273 |

**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | TURNEQ | 6.238 | 1 | .013 |
| | Overall Statistics | | 6.238 | 1 | .013 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 5.381 | 1 | .020 |
| | Block | 5.381 | 1 | .020 |
| | Model | 5.381 | 1 | .020 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 45.765 | .108 | .163 |

**Classification Table[a]**

| | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | |
| | Observed | | 0 | 1 | Percentage Correct |
| Step 1 | Y | 0 | 2 | 9 | 18.2 |
| | | 1 | 1 | 35 | 97.2 |
| | Overall Percentage | | | | 78.7 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | TURNEQ | -.126 | .062 | 4.117 | 1 | .042 | .882 |
| | Constant | 1.656 | .433 | 14.601 | 1 | .000 | 5.237 |

a. Variable(s) entered on step 1: TURNEQ.

# Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 47 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 47 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 47 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.



**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | |
| | Observed | | 0 | 1 | Percentage Correct |
| Step 0 | Y | 0 | 0 | 11 | .0 |
| | | 1 | 0 | 36 | 100.0 |
| | Overall Percentage | | | | 76.6 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | 1.186 | .345 | 11.844 | 1 | .001 | 3.273 |

**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | WCTA | 1.286 | 1 | .257 |
| | Overall Statistics | | 1.286 | 1 | .257 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 1.109 | 1 | .292 |
| | Block | 1.109 | 1 | .292 |
| | Model | 1.109 | 1 | .292 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 50.037 | .023 | .035 |

| Observed | | | Predicted Y | | Percentage Correct |
|---|---|---|---|---|---|
| | | | 0 | 1 | |
| Step 1 | Y | 0 | 1 | 10 | 9.1 |
| | | 1 | 0 | 36 | 100.0 |
| | Overall Percentage | | | | 78.7 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | WCTA | .181 | .170 | 1.138 | 1 | .286 | 1.198 |
| | Constant | 1.294 | .368 | 12.385 | 1 | .000 | 3.649 |

a. Variable(s) entered on step 1: WCTA.

## Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 47 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 47 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 47 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| Observed | | | Predicted Y | | Percentage Correct |
|---|---|---|---|---|---|
| | | | 0 | 1 | |
| Step 0 | Y | 0 | 0 | 11 | .0 |
| | | 1 | 0 | 36 | 100.0 |
| | Overall Percentage | | | | 76.6 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | 1.186 | .345 | 11.844 | 1 | .001 | 3.273 |



**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | INCEAT | 5.076 | 1 | .024 |
| | Overall Statistics | | 5.076 | 1 | .024 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 4.638 | 1 | .031 |
| | Block | 4.638 | 1 | .031 |
| | Model | 4.638 | 1 | .031 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 46.509 | .094 | .142 |

**Classification Table[a]**

| Observed | | | Predicted Y | | Percentage Correct |
|---|---|---|---|---|---|
| | | | 0 | 1 | |
| Step 1 | Y | 0 | 2 | 9 | 18.2 |
| | | 1 | 1 | 35 | 97.2 |
| | Overall Percentage | | | | 78.7 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | INCEAT | -.253 | .129 | 3.872 | 1 | .049 | .776 |
| | Constant | 1.348 | .378 | 12.690 | 1 | .000 | 3.848 |

a. Variable(s) entered on step 1: INCEAT.

## Appendix 5e: Univariate Logistic Regression -2000

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 46 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 46 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 46 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| Observed | | | Predicted Y | | Percentage Correct |
|---|---|---|---|---|---|
| | | | 0 | 1 | |
| Step 0 | Y | 0 | 0 | 15 | .0 |
| | | 1 | 0 | 31 | 100.0 |
| Overall Percentage | | | | | 67.4 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .726 | .315 | 5.327 | 1 | .021 | 2.067 |

**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | CR | .073 | 1 | .788 |
| | Overall Statistics | | .073 | 1 | .788 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | .075 | 1 | .784 |
| | Block | .075 | 1 | .784 |
| | Model | .075 | 1 | .784 |



| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 58.011 | .002 | .002 |

**Classification Table[a]**

| Observed | | | Predicted Y | | Percentage Correct |
|---|---|---|---|---|---|
| | | | 0 | 1 | |
| Step 1 | Y | 0 | 0 | 15 | .0 |
| | | 1 | 0 | 31 | 100.0 |
| Overall Percentage | | | | | 67.4 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | CR | .039 | .146 | .072 | 1 | .788 | 1.040 |
| | Constant | .650 | .420 | 2.395 | 1 | .122 | 1.915 |

a. Variable(s) entered on step 1: CR.

## Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 46 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 46 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 46 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| Observed | | | Predicted Y | | Percentage Correct |
|---|---|---|---|---|---|
| | | | 0 | 1 | |
| Step 0 | Y | 0 | 0 | 15 | .0 |
| | | 1 | 0 | 31 | 100.0 |
| Overall Percentage | | | | | 67.4 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .726 | .315 | 5.327 | 1 | .021 | 2.067 |

**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | PE | 6.560 | 1 | .010 |
| | Overall Statistics | | 6.560 | 1 | .010 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 13.605 | 1 | .000 |
| | Block | 13.605 | 1 | .000 |
| | Model | 13.605 | 1 | .000 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 44.481 | .256 | .357 |

**Classification Table[a]**

| | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | |
| | Observed | | 0 | 1 | Percentage Correct |
| Step 1 | Y | 0 | 7 | 8 | 46.7 |
| | | 1 | 1 | 30 | 96.8 |
| | Overall Percentage | | | | 80.4 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | PE | .105 | .046 | 5.241 | 1 | .022 | 1.111 |
| | Constant | .457 | .398 | 1.313 | 1 | .252 | 1.579 |

a. Variable(s) entered on step 1: PE.

## Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 46 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 46 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 46 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.



**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | |
| | Observed | | 0 | 1 | Percentage Correct |
| Step 0 | Y | 0 | 0 | 15 | .0 |
| | | 1 | 0 | 31 | 100.0 |
| | Overall Percentage | | | | 67.4 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .726 | .315 | 5.327 | 1 | .021 | 2.067 |

**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | DIVYD | 17.819 | 1 | .000 |
| | Overall Statistics | | 17.819 | 1 | .000 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 32.760 | 1 | .000 |
| | Block | 32.760 | 1 | .000 |
| | Model | 32.760 | 1 | .000 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 25.326 | .509 | .710 |

Classification Table[a]

| Observed | | Predicted | | |
|---|---|---|---|---|
| | | Y | | Percentage Correct |
| | | 0 | 1 | |
| Step 1 Y | 0 | 14 | 1 | 93.3 |
| | 1 | 3 | 28 | 90.3 |
| Overall Percentage | | | | 91.3 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | DIVYD | .889 | .279 | 10.144 | 1 | .001 | 2.432 |
| | Constant | -1.489 | .616 | 5.852 | 1 | .016 | .226 |

a. Variable(s) entered on step 1: DIVYD.

## Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 46 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 46 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 46 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| Observed | | Predicted | | |
|---|---|---|---|---|
| | | Y | | Percentage Correct |
| | | 0 | 1 | |
| Step 0 Y | 0 | 0 | 15 | .0 |
| | 1 | 0 | 31 | 100.0 |
| Overall Percentage | | | | 67.4 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .726 | .315 | 5.327 | 1 | .021 | 2.067 |



| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | DIVPAY | 15.930 | 1 | .000 |
| | Overall Statistics | | 15.930 | 1 | .000 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 27.471 | 1 | .000 |
| | Block | 27.471 | 1 | .000 |
| | Model | 27.471 | 1 | .000 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 30.616 | .450 | .627 |

**Classification Table[a]**

| Observed | | Predicted | | |
|---|---|---|---|---|
| | | Y | | Percentage Correct |
| | | 0 | 1 | |
| Step 1 Y | 0 | 14 | 1 | 93.3 |
| | 1 | 3 | 28 | 90.3 |
| Overall Percentage | | | | 91.3 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | DIVPAY | .076 | .024 | 9.799 | 1 | .002 | 1.079 |
| | Constant | -.985 | .528 | 3.486 | 1 | .062 | .373 |

a. Variable(s) entered on step 1: DIVPAY.

## Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 46 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 46 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 46 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 0 | Y | 0 | 0 | 15 | .0 |
| | | 1 | 0 | 31 | 100.0 |
| Overall Percentage | | | | | 67.4 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .726 | .315 | 5.327 | 1 | .021 | 2.067 |

**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | PRICEBK | 1.722 | 1 | .189 |
| | Overall Statistics | | 1.722 | 1 | .189 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 2.003 | 1 | .157 |
| | Block | 2.003 | 1 | .157 |
| | Model | 2.003 | 1 | .157 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 56.083 | .043 | .059 |



**Classification Table[a]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 1 | Y | 0 | 0 | 15 | .0 |
| | | 1 | 0 | 31 | 100.0 |
| Overall Percentage | | | | | 67.4 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | PRICEBK | .834 | .663 | 1.582 | 1 | .209 | 2.302 |
| | Constant | .144 | .529 | .074 | 1 | .785 | 1.155 |

a. Variable(s) entered on step 1: PRICEBK.

## Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 46 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 46 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 46 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 0 | Y | 0 | 0 | 15 | .0 |
| | | 1 | 0 | 31 | 100.0 |
| Overall Percentage | | | | | 67.4 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .726 | .315 | 5.327 | 1 | .021 | 2.067 |

Variables not in the Equation

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | DEBTEQ | .197 | 1 | .657 |
| | Overall Statistics | | .197 | 1 | .657 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | .192 | 1 | .661 |
| | Block | .192 | 1 | .661 |
| | Model | .192 | 1 | .661 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 57.894 | .004 | .006 |

**Classification Table[a]**

| Observed | | Predicted Y = 0 | Predicted Y = 1 | Percentage Correct |
|---|---|---|---|---|
| Step 1 Y | 0 | 0 | 15 | .0 |
| | 1 | 0 | 31 | 100.0 |
| Overall Percentage | | | | 67.4 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | DEBTEQ | -.213 | .486 | .192 | 1 | .661 | .808 |
| | Constant | .779 | .340 | 5.261 | 1 | .022 | 2.180 |

a. Variable(s) entered on step 1: DEBTEQ.

## Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 46 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 46 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 46 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.



| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| Observed | | Predicted Y = 0 | Predicted Y = 1 | Percentage Correct |
|---|---|---|---|---|
| Step 0 Y | 0 | 0 | 15 | .0 |
| | 1 | 0 | 31 | 100.0 |
| Overall Percentage | | | | 67.4 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .726 | .315 | 5.327 | 1 | .021 | 2.067 |

**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | ROI | 10.971 | 1 | .001 |
| | Overall Statistics | | 10.971 | 1 | .001 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 15.035 | 1 | .000 |
| | Block | 15.035 | 1 | .000 |
| | Model | 15.035 | 1 | .000 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 43.052 | .279 | .389 |

**Classification Table[a]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 1 | Y | 0 | 8 | 7 | 53.3 |
| | | 1 | 1 | 30 | 96.8 |
| Overall Percentage | | | | | 82.6 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | ROI | 11.061 | 4.514 | 6.005 | 1 | .014 | 63627.347 |
| | Constant | .501 | .396 | 1.599 | 1 | .206 | 1.651 |

a. Variable(s) entered on step 1: ROI.

## Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 46 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 46 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 46 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 0 | Y | 0 | 0 | 15 | .0 |
| | | 1 | 0 | 31 | 100.0 |
| Overall Percentage | | | | | 67.4 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .726 | .315 | 5.327 | 1 | .021 | 2.067 |



**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | ROE | 6.552 | 1 | .010 |
| | Overall Statistics | | 6.552 | 1 | .010 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 6.906 | 1 | .009 |
| | Block | 6.906 | 1 | .009 |
| | Model | 6.906 | 1 | .009 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 51.181 | .139 | .194 |

**Classification Table[a]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 1 | Y | 0 | 4 | 11 | 26.7 |
| | | 1 | 1 | 30 | 96.8 |
| Overall Percentage | | | | | 73.9 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | ROE | 3.818 | 1.874 | 4.151 | 1 | .042 | 45.491 |
| | Constant | .626 | .347 | 3.259 | 1 | .071 | 1.870 |

a. Variable(s) entered on step 1: ROE.

## Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 46 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 46 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 46 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

Dependent Variable Encoding

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

Classification Table[a,b]

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 0 | Y | 0 | 0 | 15 | .0 |
| | | 1 | 0 | 31 | 100.0 |
| Overall Percentage | | | | | 67.4 |

a. Constant is included in the model.

b. The cut value is .500

Variables in the Equation

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .726 | .315 | 5.327 | 1 | .021 | 2.067 |

Variables not in the Equation

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | TURNTA | 5.756 | 1 | .016 |
| | Overall Statistics | | 5.756 | 1 | .016 |

## Block 1: Method = Enter

Omnibus Tests of Model Coefficients

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 5.626 | 1 | .018 |
| | Block | 5.626 | 1 | .018 |
| | Model | 5.626 | 1 | .018 |

Model Summary

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 52.460 | .115 | .161 |



Classification Table[a]

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 1 | Y | 0 | 3 | 12 | 20.0 |
| | | 1 | 1 | 30 | 96.8 |
| Overall Percentage | | | | | 71.7 |

a. The cut value is .500

Variables in the Equation

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | TURNTA | -.256 | .132 | 3.741 | 1 | .053 | .774 |
| | Constant | 1.268 | .416 | 9.282 | 1 | .002 | 3.554 |

a. Variable(s) entered on step 1: TURNTA.

## Logistic Regression

Case Processing Summary

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 46 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 46 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 46 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

Dependent Variable Encoding

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

Classification Table[a,b]

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 0 | Y | 0 | 0 | 15 | .0 |
| | | 1 | 0 | 31 | 100.0 |
| Overall Percentage | | | | | 67.4 |

a. Constant is included in the model.

b. The cut value is .500

Variables in the Equation

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .726 | .315 | 5.327 | 1 | .021 | 2.067 |

**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | TURNEQ | .007 | 1 | .933 |
| | Overall Statistics | | .007 | 1 | .933 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | .007 | 1 | .934 |
| | Block | .007 | 1 | .934 |
| | Model | .007 | 1 | .934 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 58.079 | .000 | .000 |

**Classification Table[a]**

| | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | |
| | Observed | | 0 | 1 | Percentage Correct |
| Step 1 | Y | 0 | 0 | 15 | .0 |
| | | 1 | 0 | 31 | 100.0 |
| | Overall Percentage | | | | 67.4 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | TURNEQ | -.006 | .070 | .007 | 1 | .933 | .994 |
| | Constant | .739 | .355 | 4.350 | 1 | .037 | 2.095 |

a. Variable(s) entered on step 1: TURNEQ.

## Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 46 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 46 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 46 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.



**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | |
| | Observed | | 0 | 1 | Percentage Correct |
| Step 0 | Y | 0 | 0 | 15 | .0 |
| | | 1 | 0 | 31 | 100.0 |
| | Overall Percentage | | | | 67.4 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .726 | .315 | 5.327 | 1 | .021 | 2.067 |

**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | WCTA | 1.048 | 1 | .306 |
| | Overall Statistics | | 1.048 | 1 | .306 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | .984 | 1 | .321 |
| | Block | .984 | 1 | .321 |
| | Model | .984 | 1 | .321 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 57.102 | .021 | .030 |

Classification Table[a]

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 1 | Y | 0 | 1 | 14 | 6.7 |
| | | 1 | 1 | 30 | 96.8 |
| | Overall Percentage | | | | 67.4 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | WCTA | .179 | .182 | .965 | 1 | .326 | 1.196 |
| | Constant | .813 | .331 | 6.026 | 1 | .014 | 2.255 |

a. Variable(s) entered on step 1: WCTA.

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 45 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 45 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 45 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| Observed | | | Predicted DIV 0 | Predicted DIV 1 | Percentage Correct |
|---|---|---|---|---|---|
| Step 0 | DIV | 0 | 0 | 13 | .0 |
| | | 1 | 0 | 32 | 100.0 |
| | Overall Percentage | | | | 71.1 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .901 | .329 | 7.501 | 1 | .006 | 2.462 |

**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | DIVPAY | 11.695 | 1 | .001 |
| | | ROI | 7.007 | 1 | .008 |
| | | TURNTA | 3.930 | 1 | .047 |
| | | TURNEQ | 6.935 | 1 | .008 |
| | | WCTA | 5.695 | 1 | .017 |
| | | INCEAT | 2.317 | 1 | .128 |
| | Overall Statistics | | 17.516 | 6 | .008 |

## Block 1: Method = Enter



| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 29.706 | 6 | .000 |
| | Block | 29.706 | 6 | .000 |
| | Model | 29.706 | 6 | .000 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 24.398 | .483 | .691 |

**Classification Table[a]**

| Observed | | | Predicted DIV 0 | Predicted DIV 1 | Percentage Correct |
|---|---|---|---|---|---|
| Step 1 | DIV | 0 | 10 | 3 | 76.9 |
| | | 1 | 2 | 30 | 93.8 |
| | Overall Percentage | | | | 88.9 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | DIVPAY | .057 | .029 | 3.748 | 1 | .053 | 1.058 |
| | ROI | 1.395 | 10.007 | .019 | 1 | .889 | 4.036 |
| | TURNTA | .101 | .433 | .054 | 1 | .817 | 1.106 |
| | TURNEQ | -.231 | .296 | .610 | 1 | .435 | .794 |
| | WCTA | 2.024 | 2.142 | .893 | 1 | .345 | 7.568 |
| | INCEAT | .210 | .277 | .574 | 1 | .449 | 1.234 |
| | Constant | -.195 | .838 | .054 | 1 | .816 | .823 |

a. Variable(s) entered on step 1: DIVPAY, ROI, TURNTA, TURNEQ, WCTA, INCEAT.

## Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 45 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 45 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 45 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | DIV | | Percentage Correct |
| | | | 0 | 1 | |
| Step 0 | DIV | 0 | 0 | 13 | .0 |
| | | 1 | 0 | 32 | 100.0 |
| | Overall Percentage | | | | 71.1 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .901 | .329 | 7.501 | 1 | .006 | 2.462 |

**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | DIVPAY | 11.695 | 1 | .001 |
| | | ROI | 7.007 | 1 | .008 |
| | | TURNTA | 3.930 | 1 | .047 |
| | | TURNEQ | 6.935 | 1 | .008 |
| | | WCTA | 5.695 | 1 | .017 |
| | | INCEAT | 2.317 | 1 | .128 |
| | Overall Statistics | | 17.516 | 6 | .008 |

## Block 1: Method = Backward Stepwise (Wald)

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 29.706 | 6 | .000 |
| | Block | 29.706 | 6 | .000 |
| | Model | 29.706 | 6 | .000 |
| Step 2[a] | Step | -.020 | 1 | .889 |
| | Block | 29.686 | 5 | .000 |
| | Model | 29.686 | 5 | .000 |
| Step 3[a] | Step | -.132 | 1 | .717 |
| | Block | 29.555 | 4 | .000 |
| | Model | 29.555 | 4 | .000 |
| Step 4[a] | Step | -2.416 | 1 | .120 |
| | Block | 27.139 | 3 | .000 |
| | Model | 27.139 | 3 | .000 |
| Step 5[a] | Step | -1.101 | 1 | .294 |
| | Block | 26.038 | 2 | .000 |
| | Model | 26.038 | 2 | .000 |
| Step 6[a] | Step | -4.224 | 1 | .040 |
| | Block | 21.814 | 1 | .000 |
| | Model | 21.814 | 1 | .000 |

a. A negative Chi-squares value indicates that the Chi-squares value has decreased from the previous step.



**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 24.398 | .483 | .691 |
| 2 | 24.417 | .483 | .690 |
| 3 | 24.549 | .481 | .688 |
| 4 | 26.965 | .453 | .647 |
| 5 | 28.066 | .439 | .628 |
| 6 | 32.290 | .384 | .549 |

**Classification Table[a]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | DIV | | Percentage Correct |
| | | | 0 | 1 | |
| Step 1 | DIV | 0 | 10 | 3 | 76.9 |
| | | 1 | 2 | 30 | 93.8 |
| | Overall Percentage | | | | 88.9 |
| Step 2 | DIV | 0 | 10 | 3 | 76.9 |
| | | 1 | 2 | 30 | 93.8 |
| | Overall Percentage | | | | 88.9 |
| Step 3 | DIV | 0 | 10 | 3 | 76.9 |
| | | 1 | 2 | 30 | 93.8 |
| | Overall Percentage | | | | 88.9 |
| Step 4 | DIV | 0 | 8 | 5 | 61.5 |
| | | 1 | 2 | 30 | 93.8 |
| | Overall Percentage | | | | 84.4 |
| Step 5 | DIV | 0 | 9 | 4 | 69.2 |
| | | 1 | 2 | 30 | 93.8 |
| | Overall Percentage | | | | 86.7 |
| Step 6 | DIV | 0 | 13 | 0 | 100.0 |
| | | 1 | 3 | 29 | 90.6 |
| | Overall Percentage | | | | 93.3 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | DIVPAY | .057 | .029 | 3.748 | 1 | .053 | 1.058 |
| | ROI | 1.395 | 10.007 | .019 | 1 | .889 | 4.036 |
| | TURNTA | .101 | .433 | .054 | 1 | .817 | 1.106 |
| | TURNEQ | -.231 | .296 | .610 | 1 | .435 | .794 |
| | WCTA | 2.024 | 2.142 | .893 | 1 | .345 | 7.568 |
| | INCEAT | .210 | .277 | .574 | 1 | .449 | 1.234 |
| | Constant | -.195 | .838 | .054 | 1 | .816 | .823 |
| Step 2[a] | DIVPAY | .058 | .028 | 4.390 | 1 | .036 | 1.060 |
| | TURNTA | .127 | .387 | .107 | 1 | .743 | 1.135 |
| | TURNEQ | -.235 | .289 | .657 | 1 | .418 | .791 |
| | WCTA | 2.126 | 2.001 | 1.128 | 1 | .288 | 8.383 |
| | INCEAT | .227 | .254 | .801 | 1 | .371 | 1.255 |
| | Constant | -.167 | .814 | .042 | 1 | .838 | .847 |
| Step 3[a] | DIVPAY | .059 | .028 | 4.543 | 1 | .033 | 1.061 |
| | TURNEQ | -.168 | .137 | 1.489 | 1 | .222 | .846 |
| | WCTA | 2.128 | 2.093 | 1.034 | 1 | .309 | 8.396 |
| | INCEAT | .224 | .252 | .792 | 1 | .374 | 1.251 |
| | Constant | -.124 | .789 | .025 | 1 | .875 | .883 |
| Step 4[a] | DIVPAY | .063 | .028 | 4.989 | 1 | .026 | 1.065 |
| | TURNEQ | -.173 | .133 | 1.705 | 1 | .192 | .841 |
| | WCTA | 1.999 | 2.097 | .908 | 1 | .341 | 7.381 |
| | Constant | .129 | .729 | .031 | 1 | .859 | 1.138 |
| Step 5[a] | DIVPAY | .065 | .028 | 5.361 | 1 | .021 | 1.067 |
| | TURNEQ | -.194 | .134 | 2.104 | 1 | .147 | .824 |
| | Constant | .372 | .682 | .298 | 1 | .585 | 1.451 |
| Step 6[a] | DIVPAY | .076 | .029 | 7.126 | 1 | .008 | 1.079 |
| | Constant | -.516 | .496 | 1.083 | 1 | .298 | .597 |

a. Variable(s) entered on step 1: DIVPAY, ROI, TURNTA, TURNEQ, WCTA, INCEAT.



**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 2[a] | Variables | ROI | .019 | 1 | .889 |
| | Overall Statistics | | .019 | 1 | .889 |
| Step 3[b] | Variables | ROI | .087 | 1 | .769 |
| | | TURNTA | .114 | 1 | .736 |
| | Overall Statistics | | .129 | 2 | .937 |
| Step 4[c] | Variables | ROI | .990 | 1 | .320 |
| | | TURNTA | .083 | 1 | .773 |
| | | INCEAT | 1.443 | 1 | .230 |
| | Overall Statistics | | 1.701 | 3 | .637 |
| Step 5[d] | Variables | ROI | 1.474 | 1 | .225 |
| | | TURNTA | .029 | 1 | .864 |
| | | WCTA | .977 | 1 | .323 |
| | | INCEAT | 1.507 | 1 | .220 |
| | Overall Statistics | | 2.707 | 4 | .608 |
| Step 6[e] | Variables | ROI | 1.236 | 1 | .266 |
| | | TURNTA | 1.422 | 1 | .233 |
| | | TURNEQ | 1.803 | 1 | .179 |
| | | WCTA | 1.669 | 1 | .196 |
| | | INCEAT | 2.634 | 1 | .105 |
| | Overall Statistics | | 4.509 | 5 | .479 |

a. Variable(s) removed on step 2: ROI.

b. Variable(s) removed on step 3: TURNTA.

c. Variable(s) removed on step 4: INCEAT.

d. Variable(s) removed on step 5: WCTA.

e. Variable(s) removed on step 6: TURNEQ.

# Appendix 6b: Multivariate Logistic Regression - 2003

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 47 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 47 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 47 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| Observed | | Predicted | | |
|---|---|---|---|---|
| | | Y | | Percentage Correct |
| | | 0 | 1 | |
| Step 0 Y | 0 | 0 | 15 | .0 |
| | 1 | 0 | 32 | 100.0 |
| Overall Percentage | | | | 68.1 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .758 | .313 | 5.863 | 1 | .015 | 2.133 |

**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | PE | 17.474 | 1 | .000 |
| | | ROI | 7.425 | 1 | .006 |
| | | ROE | 5.150 | 1 | .023 |
| | | TURNEQ | 2.829 | 1 | .093 |
| | | TURNTA | 5.169 | 1 | .023 |
| | Overall Statistics | | 23.304 | 5 | .000 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 30.538 | 5 | .000 |
| | Block | 30.538 | 5 | .000 |
| | Model | 30.538 | 5 | .000 |



**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 28.327 | .478 | .669 |

**Classification Table[a]**

| Observed | | Predicted | | |
|---|---|---|---|---|
| | | Y | | Percentage Correct |
| | | 0 | 1 | |
| Step 1 Y | 0 | 12 | 3 | 80.0 |
| | 1 | 2 | 30 | 93.8 |
| Overall Percentage | | | | 89.4 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | PE | .119 | .052 | 5.333 | 1 | .021 | 1.126 |
| | ROI | .954 | 7.503 | .016 | 1 | .899 | 2.597 |
| | ROE | .812 | 1.614 | .253 | 1 | .615 | 2.253 |
| | TURNEQ | .015 | .135 | .012 | 1 | .912 | 1.015 |
| | TURNTA | -.262 | .288 | .829 | 1 | .362 | .770 |
| | Constant | .438 | .709 | .382 | 1 | .537 | 1.550 |

a. Variable(s) entered on step 1: PE, ROI, ROE, TURNEQ, TURNTA.

# Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 47 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 47 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 47 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 0 | Y | 0 | 0 | 15 | .0 |
| | | 1 | 0 | 32 | 100.0 |
| Overall Percentage | | | | | 68.1 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .758 | .313 | 5.863 | 1 | .015 | 2.133 |

**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | PE | 17.474 | 1 | .000 |
| | | ROI | 7.425 | 1 | .006 |
| | | ROE | 5.150 | 1 | .023 |
| | | TURNEQ | 2.829 | 1 | .093 |
| | | TURNTA | 5.169 | 1 | .023 |
| | Overall Statistics | | 23.304 | 5 | .000 |

## Block 1: Method = Backward Stepwise (Wald)

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 30.538 | 5 | .000 |
| | Block | 30.538 | 5 | .000 |
| | Model | 30.538 | 5 | .000 |
| Step 2[a] | Step | -.005 | 1 | .945 |
| | Block | 30.533 | 4 | .000 |
| | Model | 30.533 | 4 | .000 |
| Step 3[a] | Step | -.019 | 1 | .892 |
| | Block | 30.515 | 3 | .000 |
| | Model | 30.515 | 3 | .000 |
| Step 4[a] | Step | -.898 | 1 | .343 |
| | Block | 29.617 | 2 | .000 |
| | Model | 29.617 | 2 | .000 |
| Step 5[a] | Step | -2.176 | 1 | .140 |
| | Block | 27.441 | 1 | .000 |
| | Model | 27.441 | 1 | .000 |

a. A negative Chi-squares value indicates that the Chi-squares value has decreased from the previous step.



| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 28.327 | .478 | .669 |
| 2 | 28.332 | .478 | .669 |
| 3 | 28.350 | .478 | .669 |
| 4 | 29.249 | .467 | .655 |
| 5 | 31.424 | .442 | .619 |

**Classification Table[a]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 1 | Y | 0 | 12 | 3 | 80.0 |
| | | 1 | 2 | 30 | 93.8 |
| | Overall Percentage | | | | 89.4 |
| Step 2 | Y | 0 | 12 | 3 | 80.0 |
| | | 1 | 2 | 30 | 93.8 |
| | Overall Percentage | | | | 89.4 |
| Step 3 | Y | 0 | 12 | 3 | 80.0 |
| | | 1 | 2 | 30 | 93.8 |
| | Overall Percentage | | | | 89.4 |
| Step 4 | Y | 0 | 12 | 3 | 80.0 |
| | | 1 | 2 | 30 | 93.8 |
| | Overall Percentage | | | | 89.4 |
| Step 5 | Y | 0 | 11 | 4 | 73.3 |
| | | 1 | 1 | 31 | 96.9 |
| | Overall Percentage | | | | 89.4 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | PE | .119 | .052 | 5.333 | 1 | .021 | 1.126 |
| | ROI | .954 | 7.503 | .016 | 1 | .899 | 2.597 |
| | ROE | .812 | 1.614 | .253 | 1 | .615 | 2.253 |
| | TURNEQ | .015 | .135 | .012 | 1 | .912 | 1.015 |
| | TURNTA | -.262 | .288 | .829 | 1 | .362 | .770 |
| | Constant | .438 | .709 | .382 | 1 | .537 | 1.550 |
| Step 2[a] | PE | .119 | .051 | 5.357 | 1 | .021 | 1.127 |
| | ROI | 1.008 | 7.503 | .018 | 1 | .893 | 2.740 |
| | ROE | .719 | 1.298 | .307 | 1 | .580 | 2.052 |
| | TURNTA | -.246 | .229 | 1.148 | 1 | .284 | .782 |
| | Constant | .443 | .712 | .387 | 1 | .534 | 1.557 |
| Step 3[a] | PE | .123 | .044 | 7.673 | 1 | .006 | 1.131 |
| | ROE | .818 | 1.127 | .527 | 1 | .468 | 2.265 |
| | TURNTA | -.233 | .207 | 1.259 | 1 | .262 | .793 |
| | Constant | .462 | .698 | .438 | 1 | .508 | 1.587 |
| Step 4[a] | PE | .136 | .046 | 8.931 | 1 | .003 | 1.146 |
| | TURNTA | -.206 | .197 | 1.085 | 1 | .297 | .814 |
| | Constant | .275 | .685 | .161 | 1 | .688 | 1.317 |
| Step 5[a] | PE | .150 | .048 | 9.820 | 1 | .002 | 1.162 |
| | Constant | -.317 | .583 | .297 | 1 | .586 | .728 |

a. Variable(s) entered on step 1: PE, ROI, ROE, TURNEQ, TURNTA.

**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 2[a] | Variables | TURNEQ | .022 | 1 | .883 |
| | Overall Statistics | | .022 | 1 | .883 |
| Step 3[b] | Variables | ROI | .018 | 1 | .893 |
| | | TURNEQ | .031 | 1 | .859 |
| | Overall Statistics | | .037 | 2 | .982 |
| Step 4[c] | Variables | ROI | .432 | 1 | .511 |
| | | ROE | .753 | 1 | .385 |
| | | TURNEQ | .170 | 1 | .680 |
| | Overall Statistics | | .816 | 3 | .846 |
| Step 5[d] | Variables | ROI | .454 | 1 | .500 |
| | | ROE | 1.157 | 1 | .282 |
| | | TURNEQ | .853 | 1 | .356 |
| | | TURNTA | 1.463 | 1 | .226 |
| | Overall Statistics | | 2.742 | 4 | .602 |

a. Variable(s) removed on step 2: TURNEQ.

b. Variable(s) removed on step 3: ROI.

c. Variable(s) removed on step 4: ROE.

d. Variable(s) removed on step 5: TURNTA.

# Appendix 6c: Multivariate Logistic Regression-2002

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 47 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 47 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 47 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| Observed | | Predicted | | |
|---|---|---|---|---|
| | | Y | | Percentage Correct |
| | | 0 | 1 | |
| Step 0 Y | 0 | 0 | 14 | .0 |
| | 1 | 0 | 33 | 100.0 |
| Overall Percentage | | | | 70.2 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .857 | .319 | 7.227 | 1 | .007 | 2.357 |

**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | DIVYD | 15.606 | 1 | .000 |
| | | ROI | 6.319 | 1 | .012 |
| | | ROE | 10.329 | 1 | .001 |
| | | PRICEBK | 3.909 | 1 | .048 |
| | Overall Statistics | | 23.609 | 4 | .000 |

## Block 1: Method = Enter

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 37.707 | 4 | .000 |
| | Block | 37.707 | 4 | .000 |
| | Model | 37.707 | 4 | .000 |



**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 19.543 | .552 | .783 |

**Classification Table[a]**

| Observed | | Predicted | | |
|---|---|---|---|---|
| | | Y | | Percentage Correct |
| | | 0 | 1 | |
| Step 1 Y | 0 | 13 | 1 | 92.9 |
| | 1 | 2 | 31 | 93.9 |
| Overall Percentage | | | | 93.6 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | DIVYD | .507 | .219 | 5.344 | 1 | .021 | 1.660 |
| | ROI | -28.774 | 41.102 | .490 | 1 | .484 | .000 |
| | ROE | 30.597 | 40.203 | .579 | 1 | .447 | 19413235695629.070 |
| | PRICEBK | 3.903 | 2.072 | 3.549 | 1 | .060 | 49.533 |
| | Constant | -3.187 | 1.460 | 4.767 | 1 | .029 | .041 |

a. Variable(s) entered on step 1: DIVYD, ROI, ROE, PRICEBK.

## Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 47 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 47 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 47 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 0 | Y | 0 | 0 | 14 | .0 |
| | | 1 | 0 | 33 | 100.0 |
| Overall Percentage | | | | | 70.2 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .857 | .319 | 7.227 | 1 | .007 | 2.357 |

**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | DIVYD | 15.606 | 1 | .000 |
| | | ROI | 6.319 | 1 | .012 |
| | | ROE | 10.329 | 1 | .001 |
| | | PRICEBK | 3.909 | 1 | .048 |
| | Overall Statistics | | 23.609 | 4 | .000 |

## Block 1: Method = Backward Stepwise (Wald)

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 37.707 | 4 | .000 |
| | Block | 37.707 | 4 | .000 |
| | Model | 37.707 | 4 | .000 |
| Step 2[a] | Step | -1.141 | 1 | .285 |
| | Block | 36.566 | 3 | .000 |
| | Model | 36.566 | 3 | .000 |
| Step 3[a] | Step | -2.697 | 1 | .101 |
| | Block | 33.870 | 2 | .000 |
| | Model | 33.870 | 2 | .000 |

a. A negative Chi-squares value indicates that the Chi-squares value has decreased from the previous step.

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 19.543 | .552 | .783 |
| 2 | 20.684 | .541 | .768 |
| 3 | 23.381 | .514 | .729 |



**Classification Table[a]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 1 | Y | 0 | 13 | 1 | 92.9 |
| | | 1 | 2 | 31 | 93.9 |
| Overall Percentage | | | | | 93.6 |
| Step 2 | Y | 0 | 12 | 2 | 85.7 |
| | | 1 | 2 | 31 | 93.9 |
| Overall Percentage | | | | | 91.5 |
| Step 3 | Y | 0 | 12 | 2 | 85.7 |
| | | 1 | 3 | 30 | 90.9 |
| Overall Percentage | | | | | 89.4 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | DIVYD | .507 | .219 | 5.344 | 1 | .021 | 1.660 |
| | ROI | -28.774 | 41.102 | .490 | 1 | .484 | .000 |
| | ROE | 30.597 | 40.203 | .579 | 1 | .447 | 19413235695629.070 |
| | PRICEBK | 3.903 | 2.072 | 3.549 | 1 | .060 | 49.533 |
| | Constant | -3.187 | 1.460 | 4.767 | 1 | .029 | .041 |
| Step 2[a] | DIVYD | .566 | .206 | 7.555 | 1 | .006 | 1.762 |
| | ROE | 5.025 | 5.148 | .953 | 1 | .329 | 152.188 |
| | PRICEBK | 4.206 | 1.996 | 4.442 | 1 | .035 | 67.119 |
| | Constant | -3.506 | 1.409 | 6.193 | 1 | .013 | .030 |
| Step 3[a] | DIVYD | .568 | .187 | 9.192 | 1 | .002 | 1.764 |
| | PRICEBK | 4.518 | 2.025 | 4.978 | 1 | .026 | 91.629 |
| | Constant | -3.355 | 1.265 | 7.041 | 1 | .008 | .035 |

a. Variable(s) entered on step 1: DIVYD, ROI, ROE, PRICEBK.

**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 2[a] | Variables | ROI | .623 | 1 | .430 |
| | Overall Statistics | | .623 | 1 | .430 |
| Step 3[b] | Variables | ROI | .182 | 1 | .670 |
| | | ROE | 2.183 | 1 | .140 |
| | Overall Statistics | | 2.748 | 2 | .253 |

a. Variable(s) removed on step 2: ROI.

b. Variable(s) removed on step 3: ROE.

# Appendix 6d: Multivariate Logistic Regression-2001

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 47 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 47 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 47 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 0 | Y | 0 | 0 | 11 | .0 |
| | | 1 | 0 | 36 | 100.0 |
| | Overall Percentage | | | | 76.6 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | 1.186 | .345 | 11.844 | 1 | .001 | 3.273 |

**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | CR | 2.483 | 1 | .115 |
| | | DIVPAY | 5.870 | 1 | .015 |
| | | PRICEBK | 1.711 | 1 | .191 |
| | | DEBTEQ | 5.226 | 1 | .022 |
| | | ROI | 4.711 | 1 | .030 |
| | | TURNEQ | 6.238 | 1 | .013 |
| | Overall Statistics | | 13.961 | 6 | .030 |

## Block 1: Method = Enter



**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 22.660 | 6 | .001 |
| | Block | 22.660 | 6 | .001 |
| | Model | 22.660 | 6 | .001 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 28.487 | .383 | .577 |

**Classification Table[a]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 1 | Y | 0 | 6 | 5 | 54.5 |
| | | 1 | 2 | 34 | 94.4 |
| | Overall Percentage | | | | 85.1 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | CR | 1.715 | .895 | 3.673 | 1 | .055 | 5.559 |
| | DIVPAY | .030 | .015 | 4.004 | 1 | .045 | 1.031 |
| | PRICEBK | .900 | 2.106 | .183 | 1 | .669 | 2.461 |
| | DEBTEQ | -.586 | .594 | .975 | 1 | .323 | .556 |
| | ROI | 3.186 | 3.367 | .896 | 1 | .344 | 24.197 |
| | TURNEQ | .014 | .080 | .032 | 1 | .859 | 1.014 |
| | Constant | -1.613 | 1.436 | 1.262 | 1 | .261 | .199 |

a. Variable(s) entered on step 1: CR, DIVPAY, PRICEBK, DEBTEQ, ROI, TURNEQ.

# Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 47 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 47 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 47 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table**

| Observed | | | Predicted Y = 0 | Predicted Y = 1 | Percentage Correct |
|---|---|---|---|---|---|
| Step 0 | Y | 0 | 0 | 11 | .0 |
| | | 1 | 0 | 36 | 100.0 |
| | Overall Percentage | | | | 76.6 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | 1.186 | .345 | 11.844 | 1 | .001 | 3.273 |

**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | CR | 2.483 | 1 | .115 |
| | | DIVPAY | 5.870 | 1 | .015 |
| | | PRICEBK | 1.711 | 1 | .191 |
| | | DEBTEQ | 5.226 | 1 | .022 |
| | | ROI | 4.711 | 1 | .030 |
| | | TURNEQ | 6.238 | 1 | .013 |
| | Overall Statistics | | 13.961 | 6 | .030 |

## Block 1: Method = Backward Stepwise (Wald)

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 22.660 | 6 | .001 |
| | Block | 22.660 | 6 | .001 |
| | Model | 22.660 | 6 | .001 |
| Step 2[a] | Step | -.031 | 1 | .859 |
| | Block | 22.628 | 5 | .000 |
| | Model | 22.628 | 5 | .000 |
| Step 3[a] | Step | -.295 | 1 | .587 |
| | Block | 22.333 | 4 | .000 |
| | Model | 22.333 | 4 | .000 |
| Step 4[a] | Step | -1.530 | 1 | .216 |
| | Block | 20.803 | 3 | .000 |
| | Model | 20.803 | 3 | .000 |
| Step 5[a] | Step | -3.614 | 1 | .057 |
| | Block | 17.189 | 2 | .000 |
| | Model | 17.189 | 2 | .000 |

a. A negative Chi-squares value indicates that the Chi-squares value has decreased from the previous step.



**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 28.487 | .383 | .577 |
| 2 | 28.519 | .382 | .576 |
| 3 | 28.814 | .378 | .570 |
| 4 | 30.344 | .358 | .539 |
| 5 | 33.958 | .306 | .462 |

**Classification Table[a]**

| Observed | | | Predicted Y = 0 | Predicted Y = 1 | Percentage Correct |
|---|---|---|---|---|---|
| Step 1 | Y | 0 | 6 | 5 | 54.5 |
| | | 1 | 2 | 34 | 94.4 |
| | Overall Percentage | | | | 85.1 |
| Step 2 | Y | 0 | 7 | 4 | 63.6 |
| | | 1 | 2 | 34 | 94.4 |
| | Overall Percentage | | | | 87.2 |
| Step 3 | Y | 0 | 6 | 5 | 54.5 |
| | | 1 | 2 | 34 | 94.4 |
| | Overall Percentage | | | | 85.1 |
| Step 4 | Y | 0 | 4 | 7 | 36.4 |
| | | 1 | 2 | 34 | 94.4 |
| | Overall Percentage | | | | 80.9 |
| Step 5 | Y | 0 | 6 | 5 | 54.5 |
| | | 1 | 3 | 33 | 91.7 |
| | Overall Percentage | | | | 83.0 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | CR | 1.715 | .895 | 3.673 | 1 | .055 | 5.559 |
| | DIVPAY | .030 | .015 | 4.004 | 1 | .045 | 1.031 |
| | PRICEBK | .900 | 2.106 | .183 | 1 | .669 | 2.461 |
| | DEBTEQ | -.586 | .594 | .975 | 1 | .323 | .556 |
| | ROI | 3.186 | 3.367 | .896 | 1 | .344 | 24.197 |
| | TURNEQ | .014 | .080 | .032 | 1 | .859 | 1.014 |
| | Constant | -1.613 | 1.436 | 1.262 | 1 | .261 | .199 |
| Step 2[a] | CR | 1.677 | .863 | 3.776 | 1 | .052 | 5.350 |
| | DIVPAY | .029 | .014 | 4.239 | 1 | .039 | 1.030 |
| | PRICEBK | .985 | 2.068 | .227 | 1 | .634 | 2.679 |
| | DEBTEQ | -.553 | .562 | .968 | 1 | .325 | .575 |
| | ROI | 2.990 | 3.047 | .963 | 1 | .326 | 19.894 |
| | Constant | -1.558 | 1.405 | 1.230 | 1 | .267 | .211 |
| Step 3[a] | CR | 1.669 | .833 | 4.013 | 1 | .045 | 5.307 |
| | DIVPAY | .032 | .014 | 5.527 | 1 | .019 | 1.032 |
| | DEBTEQ | -.649 | .562 | 1.332 | 1 | .248 | .523 |
| | ROI | 2.771 | 2.846 | .948 | 1 | .330 | 15.977 |
| | Constant | -1.105 | .950 | 1.353 | 1 | .245 | .331 |
| Step 4[a] | CR | 1.802 | .851 | 4.483 | 1 | .034 | 6.060 |
| | DIVPAY | .035 | .014 | 6.379 | 1 | .012 | 1.035 |
| | DEBTEQ | -.791 | .632 | 1.568 | 1 | .210 | .453 |
| | Constant | -1.180 | .938 | 1.581 | 1 | .209 | .307 |
| Step 5[a] | CR | 1.591 | .788 | 4.081 | 1 | .043 | 4.909 |
| | DIVPAY | .033 | .013 | 6.409 | 1 | .011 | 1.034 |
| | Constant | -1.310 | .890 | 2.168 | 1 | .141 | .270 |

a. Variable(s) entered on step 1: CR, DIVPAY, PRICEBK, DEBTEQ, ROI, TURNEQ.

**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 2[a] | Variables | TURNEQ | .032 | 1 | .859 |
| | Overall Statistics | | .032 | 1 | .859 |
| Step 3[b] | Variables | PRICEBK | .152 | 1 | .697 |
| | | TURNEQ | .089 | 1 | .765 |
| | Overall Statistics | | .210 | 2 | .900 |
| Step 4[c] | Variables | PRICEBK | .144 | 1 | .705 |
| | | ROI | 1.286 | 1 | .257 |
| | | TURNEQ | .036 | 1 | .850 |
| | Overall Statistics | | 1.456 | 3 | .693 |
| Step 5[d] | Variables | PRICEBK | .763 | 1 | .382 |
| | | DEBTEQ | 2.992 | 1 | .084 |
| | | ROI | 2.294 | 1 | .130 |
| | | TURNEQ | 1.228 | 1 | .268 |
| | Overall Statistics | | 4.453 | 4 | .348 |

a. Variable(s) removed on step 2: TURNEQ.

b. Variable(s) removed on step 3: PRICEBK.

c. Variable(s) removed on step 4: ROI.

d. Variable(s) removed on step 5: DEBTEQ.

# Appendix 6e: Multivariate Logistic Regression- 2000

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 46 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 46 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 46 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 0 | Y | 0 | 0 | 15 | .0 |
| | | 1 | 0 | 31 | 100.0 |
| | Overall Percentage | | | | 67.4 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .726 | .315 | 5.327 | 1 | .021 | 2.067 |

**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | PE | 6.560 | 1 | .010 |
| | | DIVYD | 17.819 | 1 | .000 |
| | | DIVPAY | 15.930 | 1 | .000 |
| | | ROI | 10.971 | 1 | .001 |
| | | ROE | 6.552 | 1 | .010 |
| | | TURNTA | 5.756 | 1 | .016 |
| | Overall Statistics | | 25.377 | 6 | .000 |

## Block 1: Method = Enter



**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 38.138 | 6 | .000 |
| | Block | 38.138 | 6 | .000 |
| | Model | 38.138 | 6 | .000 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 19.948 | .564 | .786 |

**Classification Table[a]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 1 | Y | 0 | 14 | 1 | 93.3 |
| | | 1 | 1 | 30 | 96.8 |
| | Overall Percentage | | | | 95.7 |

a. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | PE | .006 | .029 | .049 | 1 | .825 | 1.006 |
| | DIVYD | .637 | .288 | 4.903 | 1 | .027 | 1.891 |
| | DIVPAY | .025 | .027 | .869 | 1 | .351 | 1.025 |
| | ROI | 4.646 | 8.179 | .323 | 1 | .570 | 104.184 |
| | ROE | -2.126 | 4.145 | .263 | 1 | .608 | .119 |
| | TURNTA | -.252 | .330 | .585 | 1 | .444 | .777 |
| | Constant | -1.099 | 1.005 | 1.197 | 1 | .274 | .333 |

a. Variable(s) entered on step 1: PE, DIVYD, DIVPAY, ROI, ROE, TURNTA.

# Logistic Regression

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 46 | 100.0 |
| | Missing Cases | 0 | .0 |
| | Total | 46 | 100.0 |
| Unselected Cases | | 0 | .0 |
| Total | | 46 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

**Dependent Variable Encoding**

| Original Value | Internal Value |
|---|---|
| 0 | 0 |
| 1 | 1 |

## Block 0: Beginning Block

**Classification Table[a,b]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 0 | Y | 0 | 0 | 15 | .0 |
| | | 1 | 0 | 31 | 100.0 |
| Overall Percentage | | | | | 67.4 |

a. Constant is included in the model.

b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | .726 | .315 | 5.327 | 1 | .021 | 2.067 |

**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 0 | Variables | PE | 6.560 | 1 | .010 |
| | | DIVYD | 17.819 | 1 | .000 |
| | | DIVPAY | 15.930 | 1 | .000 |
| | | ROI | 10.971 | 1 | .001 |
| | | ROE | 6.552 | 1 | .010 |
| | | TURNTA | 5.756 | 1 | .016 |
| | Overall Statistics | | 25.377 | 6 | .000 |

## Block 1: Method = Backward Stepwise (Wald)

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 38.138 | 6 | .000 |
| | Block | 38.138 | 6 | .000 |
| | Model | 38.138 | 6 | .000 |
| Step 2[a] | Step | -.056 | 1 | .813 |
| | Block | 38.082 | 5 | .000 |
| | Model | 38.082 | 5 | .000 |
| Step 3[a] | Step | -.359 | 1 | .549 |
| | Block | 37.723 | 4 | .000 |
| | Model | 37.723 | 4 | .000 |
| Step 4[a] | Step | -.253 | 1 | .615 |
| | Block | 37.470 | 3 | .000 |
| | Model | 37.470 | 3 | .000 |
| Step 5[a] | Step | -1.044 | 1 | .307 |
| | Block | 36.426 | 2 | .000 |
| | Model | 36.426 | 2 | .000 |

a. A negative Chi-squares value indicates that the Chi-squares value has decreased from the previous step.



**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 19.948 | .564 | .786 |
| 2 | 20.004 | .563 | .785 |
| 3 | 20.363 | .560 | .780 |
| 4 | 20.616 | .557 | .777 |
| 5 | 21.660 | .547 | .763 |

**Classification Table[a]**

| Observed | | | Predicted | | |
|---|---|---|---|---|---|
| | | | Y | | Percentage Correct |
| | | | 0 | 1 | |
| Step 1 | Y | 0 | 14 | 1 | 93.3 |
| | | 1 | 1 | 30 | 96.8 |
| | Overall Percentage | | | | 95.7 |
| Step 2 | Y | 0 | 14 | 1 | 93.3 |
| | | 1 | 1 | 30 | 96.8 |
| | Overall Percentage | | | | 95.7 |
| Step 3 | Y | 0 | 14 | 1 | 93.3 |
| | | 1 | 1 | 30 | 96.8 |
| | Overall Percentage | | | | 95.7 |
| Step 4 | Y | 0 | 14 | 1 | 93.3 |
| | | 1 | 1 | 30 | 96.8 |
| | Overall Percentage | | | | 95.7 |
| Step 5 | Y | 0 | 14 | 1 | 93.3 |
| | | 1 | 1 | 30 | 96.8 |
| | Overall Percentage | | | | 95.7 |

a. The cut value is .500

*Variables in the Equation*

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | PE | .006 | .029 | .049 | 1 | .825 | 1.006 |
| | DIVYD | .637 | .288 | 4.903 | 1 | .027 | 1.891 |
| | DIVPAY | .025 | .027 | .869 | 1 | .351 | 1.025 |
| | ROI | 4.646 | 8.179 | .323 | 1 | .570 | 104.184 |
| | ROE | -2.126 | 4.145 | .263 | 1 | .608 | .119 |
| | TURNTA | -.252 | .330 | .585 | 1 | .444 | .777 |
| | Constant | -1.099 | 1.005 | 1.197 | 1 | .274 | .333 |
| Step 2[a] | DIVYD | .654 | .282 | 5.373 | 1 | .020 | 1.923 |
| | DIVPAY | .028 | .023 | 1.495 | 1 | .221 | 1.028 |
| | ROI | 4.601 | 7.654 | .361 | 1 | .548 | 99.610 |
| | ROE | -2.189 | 3.881 | .318 | 1 | .573 | .112 |
| | TURNTA | -.251 | .341 | .540 | 1 | .463 | .778 |
| | Constant | -1.204 | .907 | 1.762 | 1 | .184 | .300 |
| Step 3[a] | DIVYD | .658 | .299 | 4.860 | 1 | .027 | 1.931 |
| | DIVPAY | .027 | .023 | 1.472 | 1 | .225 | 1.028 |
| | ROI | 1.547 | 3.456 | .200 | 1 | .654 | 4.698 |
| | TURNTA | -.245 | .326 | .568 | 1 | .451 | .782 |
| | Constant | -1.166 | .900 | 1.682 | 1 | .195 | .311 |
| Step 4[a] | DIVYD | .684 | .296 | 5.352 | 1 | .021 | 1.982 |
| | DIVPAY | .031 | .022 | 2.073 | 1 | .150 | 1.032 |
| | TURNTA | -.264 | .346 | .579 | 1 | .447 | .768 |
| | Constant | -1.342 | .855 | 2.466 | 1 | .116 | .261 |
| Step 5[a] | DIVYD | .675 | .284 | 5.659 | 1 | .017 | 1.963 |
| | DIVPAY | .037 | .022 | 2.891 | 1 | .089 | 1.037 |
| | Constant | -1.879 | .738 | 6.485 | 1 | .011 | .153 |

a. Variable(s) entered on step 1: PE, DIVYD, DIVPAY, ROI, ROE, TURNTA.

**Variables not in the Equation**

| | | | Score | df | Sig. |
|---|---|---|---|---|---|
| Step 2[a] | Variables | PE | .049 | 1 | .825 |
| | Overall Statistics | | .049 | 1 | .825 |
| Step 3[b] | Variables | PE | .113 | 1 | .736 |
| | | ROE | .304 | 1 | .581 |
| | Overall Statistics | | .304 | 2 | .859 |
| Step 4[c] | Variables | PE | .119 | 1 | .730 |
| | | ROI | .211 | 1 | .646 |
| | | ROE | .002 | 1 | .967 |
| | Overall Statistics | | .435 | 3 | .933 |
| Step 5[d] | Variables | PE | .120 | 1 | .729 |
| | | ROI | .167 | 1 | .683 |
| | | ROE | .004 | 1 | .952 |
| | | TURNTA | .709 | 1 | .400 |
| | Overall Statistics | | 1.249 | 4 | .870 |

a. Variable(s) removed on step 2: PE.

b. Variable(s) removed on step 3: ROE.

c. Variable(s) removed on step 4: ROI.

d. Variable(s) removed on step 5: TURNTA.

## Appendix 7 (b): Computed Probabilities of NSE Firms paying Dividends

Significant Variables:

| | |
|---|---|
| PE | 0.150384 |
| Constant | -0.31727 |

Prob = 1/ (1+ Exp-(a+bx))

| 2003 | If Paid Dividend (Actual) | | P/E Ratio | {-(a + Bxi)} | Exp{-(a + Bxi)} | Probability of Paying Dividend |
|---|---|---|---|---|---|---|
| Firm | Y | | PE | | | |
| Athi River Mining | 1 | | 20.35 | (2.7431) | 0.0644 | 0.9395 |
| B.O.C Kenya Ltd | 1 | | 12.73 | (1.5971) | 0.2025 | 0.8316 |
| Bamburi Cement Ltd | 1 | | 42.86 | (6.1282) | 0.0022 | 0.9978 |
| Barclays Bank Ltd | 1 | | 16.94 | (2.2302) | 0.1075 | 0.9029 |
| British American Tobacco Kenya Ltd | 1 | | 24.21 | (3.3235) | 0.0360 | 0.9652 |
| C.F.C Bank Ltd | 1 | | 13.23 | (1.6723) | 0.1878 | 0.8419 |
| Car & General (K) Ltd | 1 | | 24.97 | (3.4378) | 0.0321 | 0.9689 |
| Carbacid Investments Ltd | 1 | | 13.44 | (1.7039) | 0.1820 | 0.8460 |
| City Trust Ltd | 1 | | 12.66 | (1.5866) | 0.2046 | 0.8301 |
| CMC Holdings Ltd | 1 | | 9.33 | (1.0858) | 0.3376 | 0.7476 |
| Crown Berger Ltd | 1 | | 12.94 | (1.6287) | 0.1962 | 0.8360 |
| Diamond Trust Bank Kenya Ltd | 1 | | 19.98 | (2.6874) | 0.0681 | 0.9363 |
| E.A Portland Cement Ltd | 1 | | 18.41 | (2.4513) | 0.0862 | 0.9207 |
| E.A.Cables Ltd | 1 | | 29.52 | (4.1221) | 0.0162 | 0.9840 |
| East Africal Breweries Ltd | 1 | | 16.43 | (2.1535) | 0.1161 | 0.8960 |
| I.C.D.C Investments Co.Ltd | 1 | | 17.62 | (2.3325) | 0.0971 | 0.9115 |
| Jubilee Insurance Co. Ltd | 1 | | 8.46 | (0.9550) | 0.3848 | 0.7221 |
| Kapchorua Tea Co. Ltd | 1 | | 15.40 | (1.9987) | 0.1355 | 0.8807 |
| Kenya Airways Ltd | 1 | | 6.64 | (0.6813) | 0.5060 | 0.6640 |
| Kenya Commercial Bank Ltd | 1 | | 16.64 | (2.1851) | 0.1125 | 0.8989 |
| Kenya Oil Co.Ltd | 1 | | 5.85 | (0.5625) | 0.5698 | 0.6370 |
| Kenya Orchards Ltd | 1 | | (5.94) | 1.2105 | 3.3553 | 0.2296 |
| Limuru Tea Co. Ltd | 1 | | 11.93 | (1.4768) | 0.2284 | 0.8141 |
| Nation Media Group | 1 | | 16.35 | (2.1415) | 0.1175 | 0.8949 |
| NIC Bank Ltd | 1 | | 15.46 | (2.0077) | 0.1343 | 0.8816 |
| Rea Vipingo Plantations Ltd | 1 | | 95.81 | (14.0910) | 0.0000 | 1.0000 |
| Sameer Africa Ltd | 1 | | 21.07 | (2.8513) | 0.0578 | 0.9454 |
| Standard Chartered Bank Ltd | 1 | | 16.93 | (2.2287) | 0.1077 | 0.9028 |
| Total Kenya Ltd | 1 | | 12.82 | (1.6107) | 0.1998 | 0.8335 |
| TPS Ltd (Serena) | 1 | | 42.03 | (6.0034) | 0.0025 | 0.9975 |
| Unilever Tea Kenya Ltd | 1 | | 51.82 | (7.4756) | 0.0006 | 0.9994 |
| Williamson Tea Kenya Ltd | 1 | | 9.52 | (1.1144) | 0.3281 | 0.7529 |
| A.Baumann & Co. Ltd | 0 | | (8.78) | 1.6376 | 5.1430 | 0.1628 |
| Eaagads Ltd | 0 | | (30.01) | 4.8303 | 125.2483 | 0.0079 |
| Express Ltd | 0 | | (0.63) | 0.4120 | 1.5098 | 0.3984 |
| Housing Finance Company Ltd | 0 | | 26.73 | (3.7025) | 0.0247 | 0.9759 |
| Kakuzi | 0 | | (24.34) | 3.9776 | 53.3898 | 0.0184 |
| Kenya Power & Lighting Ltd | 0 | | (0.83) | 0.4421 | 1.5559 | 0.3912 |
| Marshalls (E.A.) Ltd | 0 | | 3.95 | (0.2768) | 0.7582 | 0.5687 |
| Mumias Sugar Co. Ltd | 0 | | (8.04) | 1.5264 | 4.6014 | 0.1785 |
| National Bank of Kenya Ltd | 0 | | 6.61 | (0.6768) | 0.5083 | 0.6630 |
| Olympia Capital Holdings Ltd | 0 | | 18.79 | (2.5085) | 0.0814 | 0.9247 |
| Pan Africa Insurance Holdings Ltd | 0 | | (48.12) | 7.5538 | 1,907.8976 | 0.0005 |
| Sasini Tea & Coffee Ltd | 0 | | (9.78) | 1.7880 | 5.9776 | 0.1433 |
| Standard Group Ltd | 0 | | (52.34) | 8.1884 | 3,598.8827 | 0.0003 |
| Uchumi Supermarket Ltd | 0 | | (9.69) | 1.7745 | 5.8973 | 0.1450 |
| Unga Group Ltd | 0 | | (28.11) | 4.5446 | 94.1198 | 0.0105 |

## Appendix 7 (c): Computed Probabilities of NSE Firms paying Dividends

Significant Variables:

| | |
|---|---|
| DIVYD | 0.567733 |
| PRICEBK | 4.517744 |
| Constant | -3.355384 |

Prob = 1/ (1+ Exp-(a+bx))

| 2002 | If Paid Dividend (Actual) | | Dividend Yield | Price to Book Value | {-(a + Bxi)} | Exp{-(a + Bxi)} | Probability of Paying Dividend |
|---|---|---|---|---|---|---|---|
| Firm | Y | | DivYd | PriceBk | | | |
| Athi River Mining | 1 | | 8.51 | 0.42 | (3.3735) | 0.0343 | 0.9669 |
| B.O.C Kenya Ltd | 1 | | 16.26 | 0.50 | (8.1348) | 0.0003 | 0.9997 |
| Bamburi Cement Ltd | 1 | | 8.00 | 1.24 | (6.7885) | 0.0011 | 0.9989 |
| Barclays Bank Ltd | 1 | | 8.91 | 1.87 | (10.1513) | 0.0000 | 1.0000 |
| British American Tobacco Kenya Ltd | 1 | | 16.67 | 1.14 | (11.2589) | 0.0000 | 1.0000 |
| C.F.C Bank Ltd | 1 | | 7.28 | 0.46 | (2.8559) | 0.0575 | 0.9456 |
| Carbacid Investments Ltd | 1 | | 6.43 | 0.54 | (2.7347) | 0.0649 | 0.9390 |
| City Trust Ltd | 1 | | 11.43 | 0.36 | (4.7602) | 0.0086 | 0.9915 |
| CMC Holdings Ltd | 1 | | 5.80 | 0.17 | (0.7055) | 0.4939 | 0.6694 |
| Crown Berger Ltd | 1 | | 21.43 | 0.24 | (9.8954) | 0.0001 | 0.9999 |
| Diamond Trust Bank Kenya Ltd | 1 | | 6.00 | 0.63 | (2.8972) | 0.0552 | 0.9477 |
| E.A Portland Cement Ltd | 1 | | 12.00 | 0.17 | (4.2254) | 0.0146 | 0.9856 |
| E.A.Cables Ltd | 1 | | 5.43 | 0.70 | (2.8898) | 0.0556 | 0.9473 |
| Eaagads Ltd | 1 | | 2.63 | 0.79 | (1.7068) | 0.1815 | 0.8464 |
| East Africal Breweries Ltd | 1 | | 10.91 | 0.73 | (6.1365) | 0.0022 | 0.9978 |
| I.C.D.C Investments Co.Ltd | 1 | | 10.52 | 0.54 | (5.0567) | 0.0064 | 0.9937 |
| Jubilee Insurance Co. Ltd | 1 | | 11.29 | 0.13 | (3.6416) | 0.0262 | 0.9745 |
| Kapchorua Tea Co. Ltd | 1 | | 0.36 | 1.01 | (1.4119) | 0.2437 | 0.8041 |
| Kenya Airways Ltd | 1 | | 7.64 | 0.23 | (2.0212) | 0.1325 | 0.8830 |
| Kenya Oil Co.Ltd | 1 | | 11.73 | 0.33 | (4.7950) | 0.0083 | 0.9918 |
| Kenya Orchards Ltd | 1 | | - | 1.38 | (2.8791) | 0.0562 | 0.9468 |
| Limuru Tea Co. Ltd | 1 | | 0.80 | 5.93 | (23.8890) | 0.0000 | 1.0000 |
| Mumias Sugar Co. Ltd | 1 | | 4.00 | 0.18 | 0.2713 | 1.3116 | 0.4326 |
| Nation Media Group | 1 | | 2.98 | 1.88 | (6.8298) | 0.0011 | 0.9989 |
| NIC Bank Ltd | 1 | | 10.15 | 0.65 | (5.3436) | 0.0048 | 0.9952 |
| Rea Vipingo Plantations Ltd | 1 | | 9.80 | 0.23 | (3.2475) | 0.0389 | 0.9626 |
| Sameer Africa Ltd | 1 | | 11.49 | 1.13 | (8.2729) | 0.0003 | 0.9997 |
| Sasini Tea & Coffee Ltd | 1 | | 3.79 | 0.26 | 0.0291 | 1.0295 | 0.4927 |
| Standard Chartered Bank Ltd | 1 | | 13.31 | 2.69 | (16.3539) | 0.0000 | 1.0000 |
| Total Kenya Ltd | 1 | | 8.39 | 1.04 | (6.1063) | 0.0022 | 0.9978 |
| TPS Ltd (Serena) | 1 | | 5.79 | 0.52 | (2.2810) | 0.1022 | 0.9073 |
| Uchumi Supermarket Ltd | 1 | | 3.01 | 1.07 | (3.1875) | 0.0413 | 0.9604 |
| Unilever Tea Kenya Ltd | 1 | | 4.63 | 0.60 | (1.9839) | 0.1375 | 0.8791 |
| A.Baumann & Co. Ltd | 0 | | - | 0.09 | 2.9488 | 19.0828 | 0.0498 |
| Car & General (K) Ltd | 0 | | - | 0.65 | 0.4189 | 1.5202 | 0.3968 |
| Express Ltd | 0 | | - | 0.23 | 2.3163 | 10.1381 | 0.0898 |
| Housing Finance Company Ltd | 1 | | - | 0.58 | 0.7351 | 2.0857 | 0.3241 |
| Kakuzi | 0 | | - | 0.17 | 2.5874 | 13.2947 | 0.0700 |
| Kenya Commercial Bank Ltd | 0 | | - | 0.48 | 1.1869 | 3.2768 | 0.2338 |
| Kenya Power & Lighting Ltd | 0 | | - | 0.03 | 3.2199 | 25.0244 | 0.0384 |
| Marshalls (E.A.) Ltd | 0 | | - | 0.75 | (0.0329) | 0.9676 | 0.5082 |
| National Bank of Kenya Ltd | 0 | | - | 0.38 | 1.6386 | 5.1482 | 0.1627 |
| Olympia Capital Holdings Ltd | 0 | | - | 0.36 | 1.7290 | 5.6350 | 0.1507 |
| Pan Africa Insurance Holdings Ltd | 0 | | - | 0.20 | 2.4518 | 11.6096 | 0.0793 |
| Standard Group Ltd | 0 | | - | 0.50 | 1.0965 | 2.9937 | 0.2504 |
| Unga Group Ltd | 0 | | - | 0.11 | 2.8584 | 17.4342 | 0.0542 |
| Williamson Tea Kenya Ltd | 0 | | 0.98 | 0.21 | 1.8503 | 6.3616 | 0.1358 |

## Appendix 7 (d): Computed Probabilities of NSE Firms paying Dividends

Significant Variables:

| | |
|---|---|
| CR | 1.591 |
| DIVPAY | 0.0334 |
| Constant | -1.3101 |

Prob = 1/ (1+ Exp-(a+bx))

| 2001 | If Paid Dividend (Actual) | | Current Ratio | Payout Ratio | {-(a+Bxi)} | Exp{-(a+Bxi)} | Probability of Paying Dividend |
|---|---|---|---|---|---|---|---|
| Firm | Y | | CR | DivPay | | | |
| A.Baumann & Co. Ltd | 1 | | 2.69 | (148.72) | 1.9935 | 7.3415 | 0.1199 |
| Athi River Mining | 1 | | 1.38 | 50.58 | (2.5735) | 0.0763 | 0.9291 |
| B.O.C Kenya Ltd | 1 | | 2.70 | 92.36 | (6.0680) | 0.0023 | 0.9977 |
| Bamburi Cement Ltd | 1 | | 1.72 | 55.61 | (3.2823) | 0.0375 | 0.9638 |
| Barclays Bank Ltd | 1 | | 0.12 | 87.73 | (1.8082) | 0.1639 | 0.8591 |
| British American Tobacco Kenya Ltd | 1 | | 1.64 | 130.77 | (5.6634) | 0.0035 | 0.9965 |
| C.F.C Bank Ltd | 1 | | 0.08 | 56.96 | (0.7220) | 0.4858 | 0.6731 |
| Carbacid Investments Ltd | 1 | | 16.40 | 69.23 | (27.0934) | 0.0000 | 1.0000 |
| City Trust Ltd | 1 | | 7.28 | 89.78 | (13.2689) | 0.0000 | 1.0000 |
| CMC Holdings Ltd | 1 | | 1.58 | 20.96 | (1.9032) | 0.1491 | 0.8703 |
| Crown Berger Ltd | 1 | | 1.97 | 46.47 | (3.3751) | 0.0342 | 0.9669 |
| Diamond Trust Bank Kenya Ltd | 1 | | 0.17 | 77.69 | (1.5526) | 0.2117 | 0.8253 |
| E.A Portland Cement Ltd | 1 | | 2.20 | 12.22 | (2.5980) | 0.0744 | 0.9307 |
| E.A.Cables Ltd | 1 | | 7.71 | 139.78 | (15.6217) | 0.0000 | 1.0000 |
| Eaagads Ltd | 1 | | 10.99 | 424.46 | (30.3411) | 0.0000 | 1.0000 |
| East Africal Breweries Ltd | 1 | | 1.84 | 60.48 | (3.6358) | 0.0264 | 0.9743 |
| Housing Finance Company Ltd | 1 | | 0.08 | - | 1.1763 | 3.2425 | 0.2357 |
| I.C.D.C Investments Co.Ltd | 1 | | 0.51 | 59.65 | (1.4920) | 0.2249 | 0.8164 |
| Jubilee Insurance Co. Ltd | 1 | | 0.08 | 52.00 | (0.5568) | 0.5730 | 0.6357 |
| Kapchorua Tea Co. Ltd | 1 | | 2.59 | 156.28 | (8.0263) | 0.0003 | 0.9997 |
| Kenya Airways Ltd | 1 | | 1.60 | 42.52 | (2.6546) | 0.0703 | 0.9343 |
| Kenya Commercial Bank Ltd | 1 | | 1.13 | - | (0.4848) | 0.6158 | 0.6189 |
| Kenya Oil Co.Ltd | 1 | | 1.30 | 20.16 | (1.4310) | 0.2391 | 0.8071 |
| Limuru Tea Co. Ltd | 1 | | 3.19 | - | (3.7653) | 0.0232 | 0.9774 |
| Mumias Sugar Co. Ltd | 1 | | 1.35 | 75.00 | (3.3408) | 0.0354 | 0.9658 |
| Nation Media Group | 1 | | 1.74 | 33.33 | (2.5706) | 0.0765 | 0.9289 |
| NIC Bank Ltd | 1 | | 0.15 | 51.28 | (0.6458) | 0.5242 | 0.6561 |
| Olympia Capital Holdings Ltd | 1 | | 1.73 | - | (1.4424) | 0.2364 | 0.8088 |
| Sameer Africa Ltd | 1 | | 2.83 | 83.44 | (5.9772) | 0.0025 | 0.9975 |
| Sasini Tea & Coffee Ltd | 1 | | 2.39 | 246.97 | (10.7347) | 0.0000 | 1.0000 |
| Standard Chartered Bank Ltd | 1 | | 1.08 | 90.94 | (3.4432) | 0.0320 | 0.9690 |
| Total Kenya Ltd | 1 | | 0.91 | - | (0.1377) | 0.8714 | 0.5344 |
| TPS Ltd (Serena) | 1 | | 1.05 | 44.00 | (1.8289) | 0.1606 | 0.8616 |
| Uchumi Supermarket Ltd | 1 | | 0.98 | 107.63 | (3.8411) | 0.0215 | 0.9790 |
| Unilever Tea Kenya Ltd | 1 | | 1.98 | 43.78 | (3.3012) | 0.0368 | 0.9645 |
| Williamson Tea Kenya Ltd | 1 | | 2.15 | 32.14 | (3.1832) | 0.0415 | 0.9602 |
| Car & General (K) Ltd | 0 | | 0.84 | - | (0.0263) | 0.9740 | 0.5066 |
| Express Ltd | 0 | | 0.69 | - | 0.2123 | 1.2365 | 0.4471 |
| Kakuzi | 0 | | 0.77 | - | 0.0850 | 1.0888 | 0.4788 |
| Kenya Orchards Ltd | 0 | | 1.06 | - | (0.3764) | 0.6864 | 0.5930 |
| Kenya Power & Lighting Ltd | 0 | | 0.68 | - | 0.2282 | 1.2564 | 0.4432 |
| Marshalls (E.A.) Ltd | 0 | | 0.76 | - | 0.1010 | 1.1062 | 0.4748 |
| National Bank of Kenya Ltd | 0 | | 0.04 | - | 1.2408 | 3.4584 | 0.2243 |
| Pan Africa Insurance Holdings Ltd | 0 | | 0.79 | - | 0.0537 | 1.0551 | 0.4866 |
| Rea Vipingo Plantations Ltd | 0 | | 1.21 | - | (0.6150) | 0.5406 | 0.6491 |
| Standard Group Ltd | 0 | | 0.56 | - | 0.4192 | 1.5207 | 0.3967 |
| Unga Group Ltd | 0 | | 0.93 | - | (0.1695) | 0.8441 | 0.5423 |

## Appendix 7 (e): Computed Probabilities of NSE Firms paying Dividends

Significant Variables:

| | |
|---|---|
| DIVYD | 0.675 |
| DIVPAY | 0.037 |
| Constant | -1.879 |

Prob = 1/ (1+ Exp-(a+bx))

| 2000 | If Paid Dividend (Actual) | | Dividend Yield | Payout Ratio | {-(a+Bxi)} | Exp{-(a+Bxi)} | Probability of Paying Dividend |
|---|---|---|---|---|---|---|---|
| Firm | Y | | DivYd | DivPay | | | |
| 1 A.Baumann & Co. Ltd | 1 | | 6.99 | 89.26 | (6.1079) | 0.0022 | 0.9978 |
| 2 B.O.C Kenya Ltd | 1 | | 8.26 | 92.77 | (7.0932) | 0.0008 | 0.9992 |
| 3 Bamburi Cement Ltd | 1 | | 2.21 | 94.19 | (3.0644) | 0.0467 | 0.9554 |
| 4 Barclays Bank Ltd | 1 | | 13.25 | 89.46 | (10.3378) | 0.0000 | 1.0000 |
| 5 British American Tobacco Kenya Ltd | 1 | | 13.06 | 135.57 | (11.8998) | 0.0000 | 1.0000 |
| 6 C.F.C Bank Ltd | 0 | | 6.67 | 41.52 | (4.1422) | 0.0159 | 0.9844 |
| 7 Carbacid Investments Ltd | 1 | | 5.61 | 28.15 | (2.9371) | 0.0530 | 0.9496 |
| 8 City Trust Ltd | 1 | | - | 74.52 | (0.8526) | 0.4263 | 0.7011 |
| 9 CMC Holdings Ltd | 1 | | 4.69 | 14.85 | (1.8290) | 0.1606 | 0.8616 |
| 10 Crown Berger Ltd | 1 | | 5.56 | 55.36 | (3.9007) | 0.0202 | 0.9802 |
| 11 Diamond Trust Bank Kenya Ltd | 1 | | 4.29 | 29.16 | (2.0837) | 0.1245 | 0.8893 |
| 12 E.A.Cables Ltd | 1 | | 11.89 | 73.29 | (8.8277) | 0.0001 | 0.9999 |
| 13 East Africal Breweries Ltd | 1 | | 8.56 | 58.09 | (6.0244) | 0.0024 | 0.9976 |
| 14 Housing Finance Company Ltd | 1 | | 6.91 | 0.84 | (2.8129) | 0.0600 | 0.9434 |
| 15 I.C.D.C Investments Co.Ltd | 1 | | 4.04 | 50.67 | (2.7035) | 0.0670 | 0.9372 |
| 16 Jubilee Insurance Co. Ltd | 1 | | 9.46 | 80.66 | (7.4588) | 0.0006 | 0.9994 |
| 17 Kakuzi | 1 | | 0.73 | (27.73) | 2.4029 | 11.0552 | 0.0830 |
| 18 Kapchorua Tea Co. Ltd | 1 | | 1.67 | 65.78 | (1.6587) | 0.1904 | 0.8401 |
| 19 Kenya Airways Ltd | 1 | | 16.67 | 20.73 | (10.1254) | 0.0000 | 1.0000 |
| 20 Kenya Oil Co.Ltd | 1 | | 5.29 | 39.62 | (3.1417) | 0.0432 | 0.9586 |
| 21 Kenya Power & Lighting Ltd | 1 | | 3.88 | (4.96) | (0.5565) | 0.5732 | 0.6356 |
| 22 Limuru Tea Co. Ltd | 1 | | 8.50 | 93.03 | (7.2646) | 0.0007 | 0.9993 |
| 23 Nation Media Group | 1 | | 2.54 | 30.72 | (0.9605) | 0.3827 | 0.7232 |
| 24 NIC Bank Ltd | 1 | | 10.14 | 47.46 | (6.7005) | 0.0012 | 0.9988 |
| 25 Olympia Capital Holdings Ltd | 1 | | 6.25 | 222.22 | (10.4824) | 0.0000 | 1.0000 |
| 26 Sameer Africa Ltd | 1 | | 8.70 | 95.13 | (7.4765) | 0.0006 | 0.9994 |
| 27 Sasini Tea & Coffee Ltd | 1 | | 5.76 | 68.63 | (4.5220) | 0.0109 | 0.9893 |
| 28 Standard Chartered Bank Ltd | 1 | | 22.22 | 125.03 | (17.6922) | 0.0000 | 1.0000 |
| 29 TPS Ltd (Serena) | 1 | | 6.96 | 51.23 | (4.6937) | 0.0092 | 0.9909 |
| 30 Uchumi Supermarket Ltd | 1 | | 7.02 | 56.24 | (4.9178) | 0.0073 | 0.9927 |
| 31 Unilever Tea Kenya Ltd | 1 | | 6.19 | 65.31 | (4.6904) | 0.0092 | 0.9909 |
| 32 Williamson Tea Kenya Ltd | 1 | | 2.87 | 27.98 | (1.0826) | 0.3387 | 0.7470 |
| 33 Athi River Mining | 0 | | - | - | 1.8789 | 6.5461 | 0.1325 |
| 34 Car & General (K) Ltd | 0 | | - | - | 1.8789 | 6.5461 | 0.1325 |
| 35 E.A Portland Cement Ltd | 0 | | - | - | 1.8789 | 6.5461 | 0.1325 |
| 36 Eaagads Ltd | 0 | | - | - | 1.8789 | 6.5461 | 0.1325 |
| 37 Express Ltd | 0 | | - | - | 1.8789 | 6.5461 | 0.1325 |
| 38 Kenya Commercial Bank Ltd | 0 | | - | - | 1.8789 | 6.5461 | 0.1325 |
| 39 Kenya Orchards Ltd | 0 | | - | - | 1.8789 | 6.5461 | 0.1325 |
| 40 Marshalls (E.A.) Ltd | 0 | | - | - | 1.8789 | 6.5461 | 0.1325 |
| 41 National Bank of Kenya Ltd | 0 | | - | - | 1.8789 | 6.5461 | 0.1325 |
| 42 Pan Africa Insurance Holdings Ltd | 0 | | - | - | 1.8789 | 6.5461 | 0.1325 |
| 43 Rea Vipingo Plantations Ltd | 0 | | - | - | 1.8789 | 6.5461 | 0.1325 |
| 44 Standard Group Ltd | 0 | | - | - | 1.8789 | 6.5461 | 0.1325 |
| 45 Total Kenya Ltd | 0 | | - | - | 1.8789 | 6.5461 | 0.1325 |
| 46 Unga Group Ltd | 0 | | - | - | 1.8789 | 6.5461 | 0.1325 |